

Certificate of Analysis

Potassium Chloride reference standard traceable to NIST, AnStan®.

| | |
|-------------------|---|
| Product code: | BS11228. |
| Description: | Potassium Chloride reference standard traceable to NIST, AnStan®. |
| Synonym: | Potassium Chloride. |
| Pack Size: | 100 gm. |
| CAS NO.: | 7447-40-7. |
| Mol. Weight: | 74.55 g/mol. |
| Mol. Formula: | KCl. |
| MDL Number: | MFCD00011360. |
| Melting point: | 770 °C. |
| Boiling Point: | 1413 °C. |
| Density: | 1.98 g/cm ³ . |
| Solubility: | Soluble in water. |
| Storage: | Store at ambient temperature. |
| Batch No: | BS11228/15. |
| Manufacture Date: | 29/01/2026. |
| Expiry Date: | 28/01/2031. |

| Test | Specification | Measured Values |
|-------------------------|----------------------------|----------------------------|
| Appearance: | White powder to crystal. | White powder to crystal. |
| Insoluble matter: | NMT.0.005%. | 0.002%. |
| Identification by MASS: | Confirms to the structure. | Confirms to the structure. |
| Identification by IR: | Confirms to the structure. | Confirms to the structure. |

| | |
|---------------------|---------------------------|
| Assay by titration: | 99.97% (U = ±0.02%, k=2). |
|---------------------|---------------------------|

Note: - This material is only for laboratory purpose and not for human consumption.

KCl

Certification & Traceability:

This product was manufactured, processed and/or certified under a quality management system that complies with **ISO 17034:2016** and **ISO/IEC 17025:2017**.

The balances used in the preparation of this product are calibrated regularly, using a calibration provider that complies with **ISO/IEC 17025**. All standard components used in the manufacture of this product are pre-qualified and verified before use. This product was analysed according to protocol developed by NIST and is directly traceable to **NIST SRM 999c**.

Tests were performed for capacity, readability, repeatability and linearity. This product is manufactured, packaged, stored, and shipped in accordance with good manufacturing practices that is certified to **WHO-GMP**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of **k=2**.

The combined uncertainty u is derived from combination of the squared uncertainty contributions:

$$U = k \times \sqrt{u^2 \text{Characterisation} + u^2 \text{Homogeneity} + u^2 \text{Stability}}$$

uCharacterisation:

Is the uncertainty in accordance with ISO/IEC 17025 which includes the contributions of the primary reference material and the measuring system.

uHomogeneity:

Is the between-bottle variation in accordance with ISO 17034. The assessment of homogeneity is performed by analysis of a representative number of systematically chosen sample units.

uStability:

Is the uncertainty obtained from short-term and long-term stability in accordance with ISO 17034. The stability studies are the basis for the quantification of the expiry date of this reference material for the unopened bottle.

Validity Period:

Briti Scientific standards ensure the accuracy of this product for 5 years from the manufacture date given above, provided the instructions for use are followed.

Quality Certifications:

This product was prepared under a quality management system that complies with the following:

ISO 17034:2016: Reference Materials Producer, CGI Certificate No. WGMP/22N2594 – General Requirements for the Competence of Reference Material Producers.

ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35.

ISO/IEC 17025:2017: Chemical Testing, CGI Certificate No. UG/23N256- General Requirements for the Competence of Testing and Calibration Laboratories.

ISO 9001:2015 Certified: Quality Management Systems, CGI Certificate No. QMS/23N258.

WHO-GMP Certified: Good Manufacturing Practices, CGI Certificate No. WGMP/22N2594.

Health and Safety Information:

Refer to the Safety Data Sheet (SDS), which can be obtained at www.britisscientific.com.

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This is a computer generated COA, no stamp or signature is required.



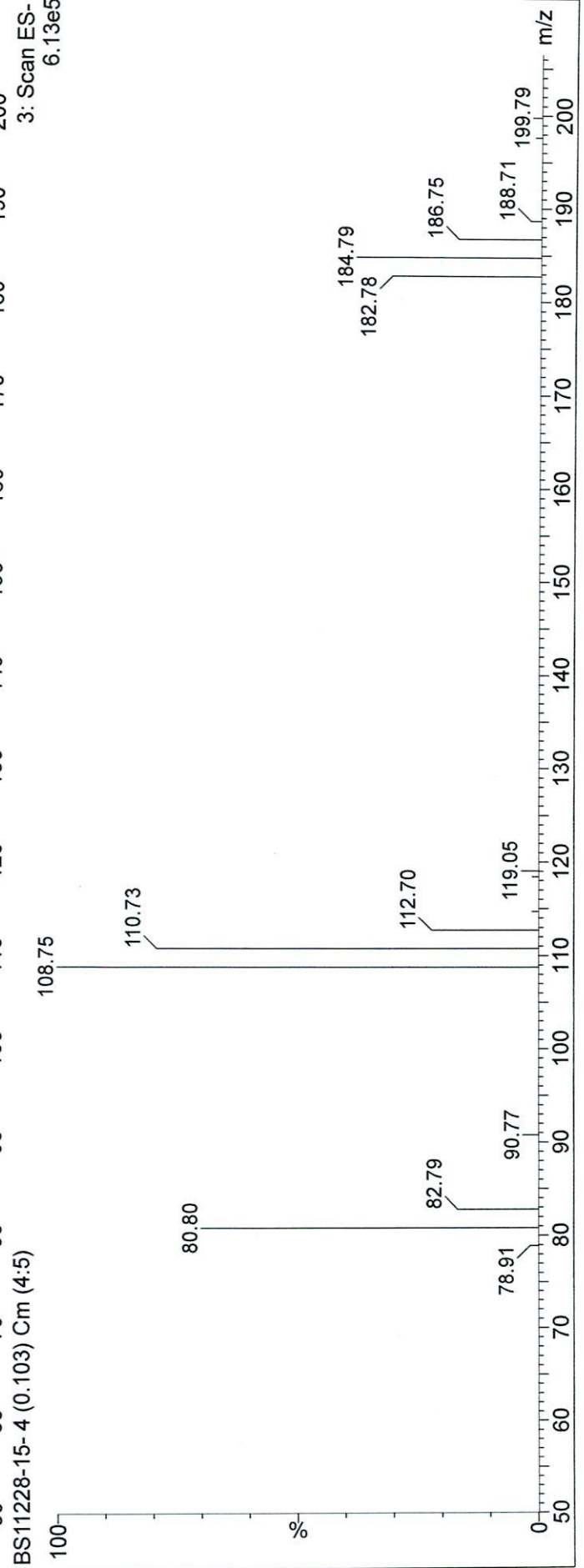
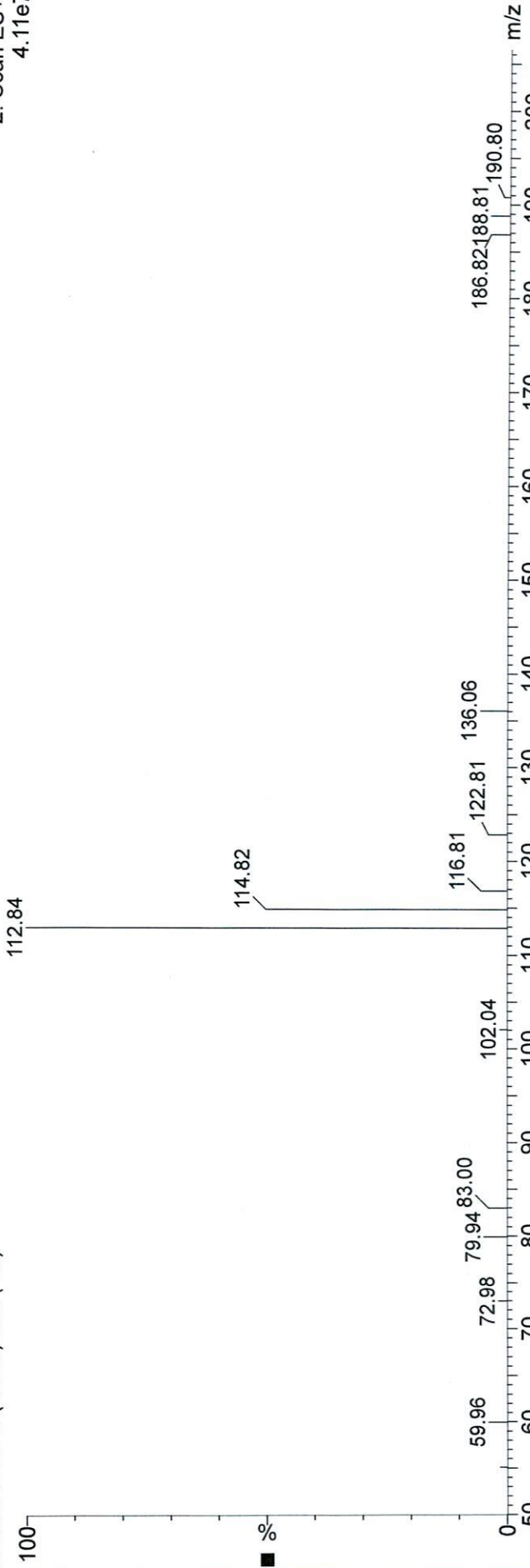
N.S. Mallika.
Quality Control.



D. Manga Raju.
Quality Assurance.

SAMPLE NAME: BS11228-15
INSTRUMENT ID: SA/AD/INS/042
BS11228-15- 5 (0.120) Cm (4:5)

Vial Position: 2: E, 5
29-Jan-2026 20:49:31
2: Scan ES+
4.11e7

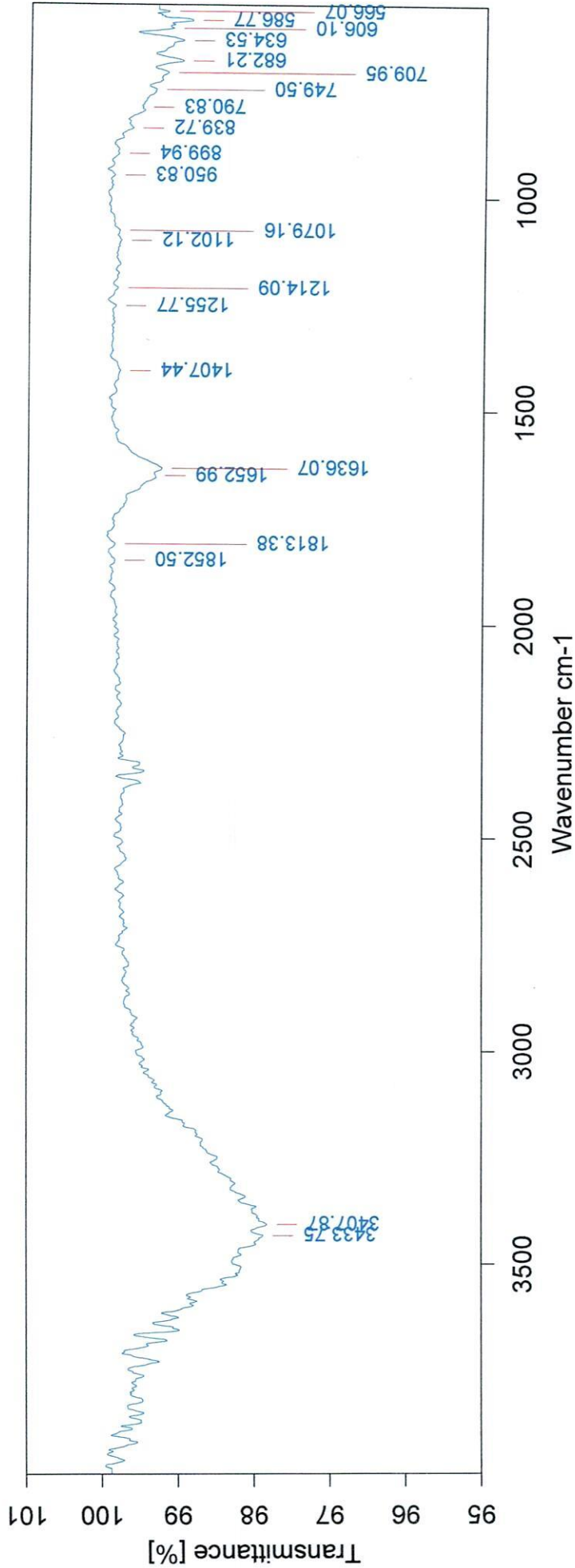


D.M.P.
29/01/2026

29/01/2026

INFRARED SPECTRUM

Instrument ID No: SA/AD/INS/019



Path/File Name: D:\2026\JAN-2026\BS11228-15.0

Sample Name: BS11228-15

Lot No./Batch No: BS11228-15

Date & Time: 1/29/2026, 7:18:27 PM

Operator Name: SPARK

Experiment: JANUARY-2026.XPM

Resolution: 2

Sample Scans: 32

Frequency Range: 4000 to 550

SPARK 29/01/2026

1/29/2026 7:21:41 PM

DMR 29/01/2026

"D:\2026\JAN-2026\BS11228-15.0" 1
 Peak Table TR
 Peak Picking

Peak Picking Values
 Method: Standard
 Searched for minima: Yes
 Number of peaks: 22
 Sensitivity > [%]: 10.000000
 From: 400.000000
 to: 400.000000
 Absolute peak height > 0.000000
 Relative peak height < [%] 0.000000
 Absolute peak height < 0.000000

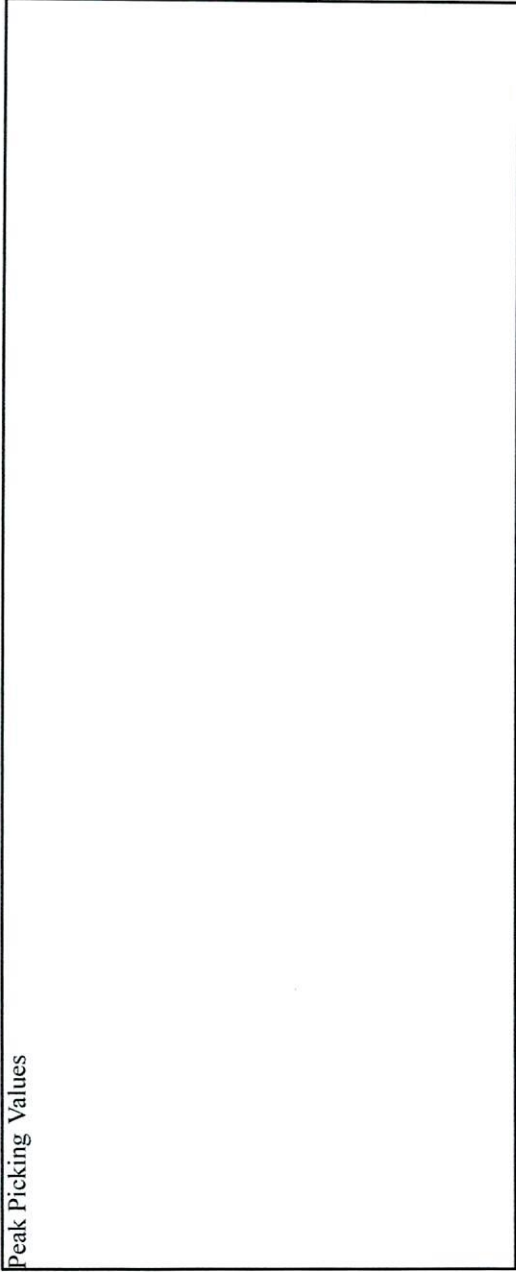
| Wavenumber | Abs. intensity | Rel. intensity | Width | Found if threshold < Shoulder |
|------------|----------------|----------------|----------|-------------------------------|
| 3407.8735 | 0.978 | 0.021 | 423.2075 | 98.728485 |
| 1636.0719 | 0.992 | 0.007 | 86.1455 | 33.358082 |
| 682.2068 | 0.990 | 0.004 | 15.3434 | 16.894594 |
| 634.5321 | 0.990 | 0.006 | 37.8314 | 27.911560 |
| 586.7742 | 0.989 | 0.005 | 11.3793 | 21.704115 |
| 3433.7457 | 0.979 | 0.002 | 16.3459 | 34.999363 |
| 1652.9927 | 0.993 | 0.000 | 9.5096 | 0.053580 |
| 1407.4380 | 0.998 | 0.001 | 56.1169 | 100.272263 |
| 1214.0886 | 0.998 | 0.001 | 13.1256 | 38.871883 |
| 1102.1200 | 0.998 | 0.002 | 132.3094 | 113.692245 |
| 1079.1575 | 0.998 | 0.000 | 47.1049 | 17.410067 |
| 566.0694 | 0.992 | 0.002 | 5.5668 | 19.578238 |
| 709.9479 | 0.992 | 0.002 | 17.0539 | 33.842422 |
| 749.5004 | 0.993 | 0.001 | 15.4899 | 13.516231 |
| 790.8306 | 0.995 | 0.000 | 3.0730 | 2.296090 |
| 839.7234 | 0.997 | 0.001 | 163.2381 | 14.152265 |
| 606.0996 | 0.991 | 0.002 | 5.6503 | 5.975106 |
| 950.8325 | 0.999 | 0.001 | 16.3015 | 59.728561 |
| 899.9350 | 0.998 | 0.001 | 377.1862 | 19.315271 |
| 1255.7746 | 0.999 | 0.001 | 132.8606 | 51.481941 |
| 1813.3843 | 0.999 | 0.001 | 15.9440 | 80.405975 |

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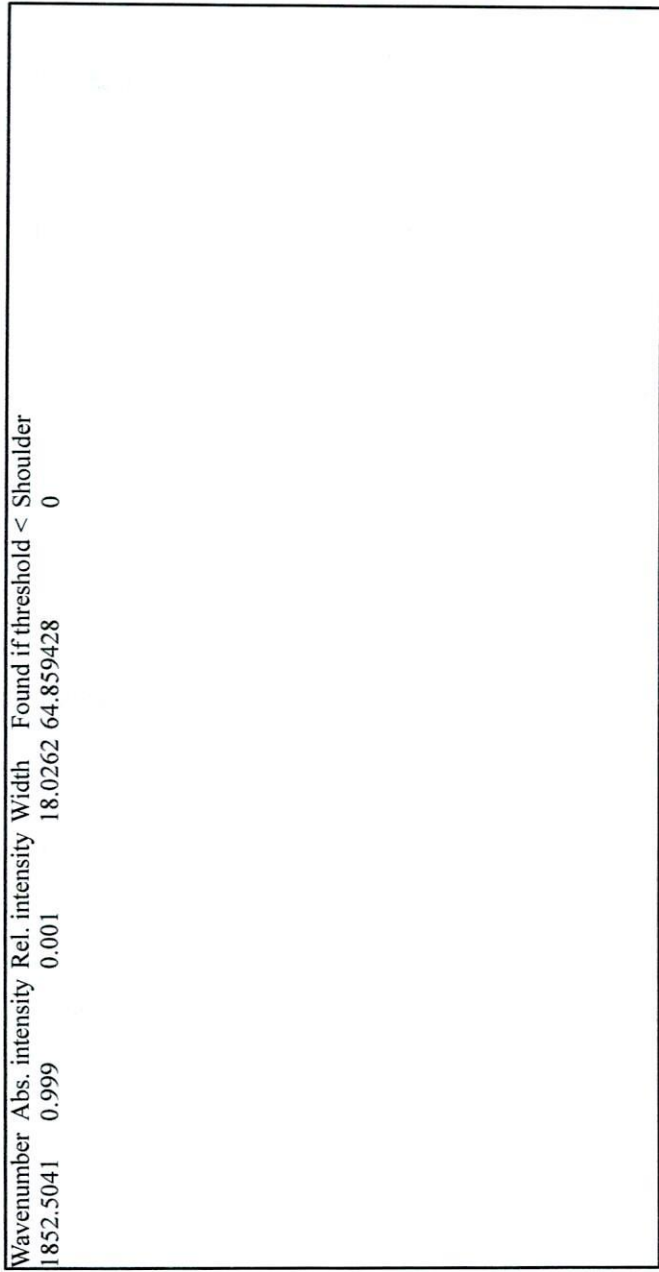
D.M.P.
29/01/2026

29/01/2026

Peak Picking Values



Wavenumber Abs. intensity Rel. intensity Width Found if threshold < Shoulder
1852.5041 0.999 0.001 18.0262 64.859428 0



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D.M.R.
29/01/2026

29/01/2026