



European Union
Community Plant Variety Office

PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

Nemesia Vent.

NEMESIA

UPOV Species Code: NEMES

Adopted on 16/10/2008

Entered into force on 29/10/2008

I - SUBJECT OF THE PROTOCOL

The protocol describes the technical procedures to be followed in order to meet the requirement of Council Regulation (EC) No. 2100/94 on Community Plant Variety Rights. The technical procedures have been agreed by the Administrative Council and are based on general UPOV Document TG/1/3 and UPOV Guideline TG/241/1 dated 9th April 2008 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies to all varieties of *Nemesia Vent*.

II - SUBMISSION OF PLANT MATERIAL

1. The Community Plant Variety Office (CPVO) is responsible for informing the applicant of

- the closing date for the receipt of plant material;
- the minimum amount and quality of plant material required;
- the Examination Office to which material is to be sent.

The applicant is responsible for ensuring compliance with any customs and plant health requirements.

2. Final dates for receipt of documentation and material by the Examination Office

The final dates for receipt of requests, technical questionnaires and the final date or submission period for plant material will be decided by the CPVO and each Examination Office chosen.

The Examination Office is responsible for immediately acknowledging the receipt of requests for testing, and technical questionnaires. If no or unsatisfactory plant material is submitted the CPVO should be informed as soon as possible.

3. Plant material requirements

Information with respect to closing dates and submission requirements of plant material for the technical examination of varieties can be found on the CPVO website (www.cpvo.europa.eu) and in the special Issue S2 of the Official Gazette of the Office published yearly in the month of September.

Quality: The plant material supplied should be visibly healthy, not lacking in vigour or affected by any important pest or disease, especially viruses, as laid down in Council Directive 2000/29/EC and its amendments, or organisms impairing quality as indicated in Council Directive 98/56/EEC and Commission Directive 93/49/EEC and their amendments.

The plant material must not have undergone any treatment unless the CPVO and the Examination Office allow or request such treatment. If it has been treated, full details of the treatment must be given.

Labelling of sample: - Species
- File number of the application allocated by the CPVO
- Breeder's reference
- Examination reference (if known)
- Name of applicant
- The phrase "On request of the CPVO"

III - CONDUCT OF TESTS

1. Variety collection

A variety collection will be maintained for the purpose of establishing distinctness of the candidate varieties in test. A variety collection may contain both living material and descriptive information. A variety will be included in a variety collection only if plant material is available to make a technical examination.

Pursuant to Article 7 of Council Regulation (EC) No. 2100/94, the basis for a collection should be the following:

- varieties listed or protected at the EU level or at least in one of the EEA Member States;
- varieties protected in other UPOV Member States;
- any other variety in common knowledge.

It is the responsibility of Examination Office to keep the variety collection up to date.

2. Material to be examined

Candidate varieties will be directly compared with other candidates for Community plant variety rights tested at the same Examination Office, and with appropriate varieties in the variety collection. When necessary an Examination Office may also include other candidates and varieties.

3. Characteristics to be used

The characteristics to be used in DUS tests and preparation of descriptions shall be those referred to in Annex 1. All the characteristics shall be used, providing that observation of a characteristic is not rendered impossible by the expression of any other characteristic, or the expression of a characteristic is prevented by the environmental conditions under which the test is conducted. In the latter case, the CPVO should be informed. In addition the existence of some other regulation e.g. plant health, may make the observation of the characteristic impossible.

The Administrative Council empowers the President, in accordance with Article 23 of Commission Regulation (EC) No. 1239/95, to insert additional characteristics and their expressions in respect of a variety.

4. Grouping of varieties

The varieties and candidates to be compared will be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety and which in their various states of expression are fairly evenly distributed throughout the collection. In the case of continuous grouping characteristics overlapping states of expression between adjacent groups is required to reduce the risks of incorrect allocation of candidates to groups. The characters used for grouping are the following:

- (a) Plant: growth habit (characteristic 1)
- (b) Leaf blade: variegation (characteristic 11)
- (c) Upper lobes of corolla: main colour (characteristic 24), with the following groups:
 - Gr. 1: white
 - Gr. 2: yellow
 - Gr. 3: orange
 - Gr. 4: pink
 - Gr. 5: red
 - Gr. 6: red purple
 - Gr. 7: violet
 - Gr. 8: blue
- (d) Lower lobe of corolla (excluding palate): main colour on inner side (characteristic 36), with the following groups:
 - Gr. 1: white
 - Gr. 2: yellow
 - Gr. 3: orange
 - Gr. 4: pink
 - Gr. 5: red
 - Gr. 6: red purple
 - Gr. 7: violet
 - Gr. 8: blue
- (e) Palate: colour (characteristic 41)

5. Trial designs and growing conditions

The minimum duration of tests will normally be one growing cycle if the results on distinctness and uniformity are conclusive. Tests will be carried out under conditions ensuring normal growth. The size of the plots will be such that plants or parts of plants may be removed for measuring and counting without prejudice to the observations which must be made up to the end of the growing period.

The test design is as follows:

As a minimum, each test should include a total of 10 plants for vegetatively propagated varieties or at least 40 plants for seed propagated varieties. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

For vegetatively propagated varieties, all observations on single plants determined by measurement or counting, should be made on 10 plants or parts taken from each of 10 plants and any other observations made on all plants in the test.

For seed propagated varieties, all observations on single plants determined by measurement or counting, should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test.

The test should normally be conducted at one place.

The test should be carried out in the open under conditions ensuring normal growth. The plants should be grown in containers to observe the growth habit.

6. Special tests

In accordance with Article 83(3) of Council Regulation (EC) No. 2100/94 an applicant may claim either in the Technical Questionnaire or during the examination that a candidate variety has a characteristic which would be helpful in establishing distinctness. If such a claim is made and is supported by reliable technical data, a special test may be undertaken providing that a technically acceptable test procedure can be devised.

Special tests will be undertaken, with the agreement of the President of CPVO, where distinctness is unlikely to be shown using the characters listed in the protocol.

7. Standards for decisions

a) **Distinctness**

A candidate variety will be considered to be distinct if it meets the requirements of Article 7 of Council Regulation (EC) No. 2100/94.

b) **Uniformity**

For the assessment of uniformity for vegetatively propagated and self pollinated seed propagated varieties, a population standard of 1% with an acceptance probability of at least 95% should be applied.

For a sample size between 6 and 35 plants for vegetatively propagated varieties, only 1 off-type is allowed.

For a sample size between 36 and 82 plants for seed propagated varieties which are self pollinated, only 2 off-types are allowed.

For the assessment of uniformity of seed propagated varieties which are cross pollinated or hybrids, the recommendations in the UPOV General Introduction for cross pollinated or hybrid varieties should be followed, as appropriate.

c) **Stability**

A candidate will be considered to be sufficiently stable when there is no evidence to indicate that it lacks uniformity.

IV - REPORTING OF RESULTS

After each growing cycle the results will be summarized and reported to the CPVO in the form of a UPOV model interim report in which any problems will be indicated under the headings distinctness, uniformity and stability. Candidates may meet the DUS standards after one growing cycle but in some cases two or more growing cycles may be required. When tests are completed the results will be sent by the Examination Office to the CPVO in the form of a UPOV model final report.

If it is considered that the candidate complies with the DUS standards, the final report will be accompanied by a variety description in the format recommended by UPOV. If not the reasons for failure and a summary of the test results will be included with the final report.

The CPVO must receive interim reports and final reports from the Examination Office by the date agreed between the CPVO and the Examination Office.

Interim reports and final examination reports shall be signed by the responsible member of the staff of the Examination Office and shall expressly acknowledge the exclusive rights of disposal of CPVO.

V - LIAISON WITH THE APPLICANT

If problems arise during the course of the test the CPVO should be informed immediately so that the information can be passed on to the applicant. Subject to prior agreement, the applicant may be directly informed at the same time as the CPVO particularly if a visit to the trial is advisable.

The interim report and final report shall be sent by the Examination Office to the CPVO.

VI – ENTRY INTO FORCE

The present protocol enters into force on 29/10/2008. Any ongoing DUS examination of candidate varieties started before the aforesaid date will not be affected by the approval of the new TP. Technical examinations of candidate varieties are carried out according to the TP in force when the DUS test starts. The starting date of a DUS examination is considered to be the due date for submitting of plant material for the first test period.

In cases where the Office requests to take-over a DUS report for which the technical examination has either been finalized or which is in the process to be carried out at the moment of this request, such report can only be accepted if the technical examination has been carried out according to the CPVO TP which was in force at the moment when the technical examination started.

ANNEXES TO FOLLOW

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List of characteristics to be observed	9
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<u>Legend:</u>	
QL Qualitative characteristic	
QN Quantitative characteristic	
PQ Pseudo-qualitative characteristic	
(a) – (c) See explanations on the Table of characteristics	
(+) See explanations on the Table of characteristics	
(*) Important characteristic to be included in the UPOV variety description	
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ANNEX II

Technical Questionnaire

ANNEX 1 TABLE OF CHARACTERISTICS

CPVO N°	UPOV N°	Characteristics	Examples	Note
1.	1. (* (+) QN	Plant: growth habit		
			upright	Inuppink 1
			semi-upright	D0158-1 2
			spreading	SUMNEM 03 3
			semi-trailing	Inupsaf 4
			trailing	Organza 5
2.	2. (+) QN	Plant: height		
			short	Yateye 3
			medium	D0158-1 5
			tall	Inuppink 7
3.	3. QN	Plant: width		
			narrow	Yateye 3
			medium	D0158-1 5
			broad	Inuppink 7
4.	4. QN	Plant: density		
			sparse	Yateye 3
			medium	Balarropi 5
			dense	D0158-1 7

CPVO N°	UPOV N°	Characteristics	Examples	Note		
5.	5.	Stem (excluding inflorescence): thickness in middle third				
			QN	thin	Innocence	1
				medium	Balarropi	2
			thick	D0158-1	3	
6.	6. (*)	Leaf blade: length				
			QN (a)	short	Balarcomwhit	3
				medium	Inuppink	5
			long	Imprinno	7	
7.	7. (*)	Leaf blade: width				
			QN (a)	narrow	Innocence	3
				medium	Imprinno	5
			broad	D0158-1	7	
8.	8.	Leaf blade: length/width ratio				
			QN (a)	low	D0158-1	3
				medium		5
			high	Innocence	7	
9.	9.	Leaf blade: number of indentations of margin				
			QN (a)	few	Imprinno	3
				medium	Sugar Girl	5
			many	Snowstorm	7	

CPVO N°	UPOV N°	Characteristics	Examples	Note		
10.	10.	Leaf blade: depth of indentations of margin				
			QN (a)	shallow	Organza	3
				medium	Honey Girl	5
				deep	Nemhabar	7
11.	11. (* (+)	Leaf blade: variegation				
			QL (a)	absent	Inuppink	1
			(b)	present	Tanith's Treasure	9
12.	12. (* (+)	Leaf blade: main colour				
			QN (a)	light green		1
			(b)	medium green	Organza	2
				dark green	Nemhabar	3
13.	13. (+)	Leaf blade: secondary colour				
			PQ (a)	light yellow	Tanith's Treasure	1
			(b)	medium yellow		2
				yellow green		3
14.	14. (+)	Inflorescence: density				
			QN	sparse	Organza	3
				medium	Innocence	5
				dense	Nemhswhi	7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
15.	15. QN	Flower: fragrance	absent or weak	Organza	1
			medium		2
			strong	Claudette	3
16.	16. (* (+) QN (c)	Corolla: length	short	SUMNEM 07	3
			medium	Nemhabar	5
			long	Inupsaf	7
17.	17. (* (+) QN (c)	Corolla: width	narrow	SUMNEM 07	3
			medium	Nemhabar	5
			broad	Inupsaf	7
18.	18. QN (c)	Corolla: length/width ratio	low		3
			medium		5
			high		7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
19.	19. (* QN (c)	Corolla: length of lateral lobes relative to length of lower lobe	much shorter		1
			moderately shorter	INUPSPINK8	3
			equal	SUMNEM 03	5
			moderately longer	Lemon Drops	7
			much longer	Masquerade	9
20.	20. (+ QN (c)	Corolla: relative position of central lobes	free	Nemhawit	1
			touching	Innocence	2
			overlapping	Nemhswhi	3
21.	21. (+ QN (c)	Corolla: attitude of lateral lobes (viewed from front)	upright	Masquerade	1
			slightly outwards	Nemhapin	2
			moderately outwards	Honey Girl	3
			horizontal	Nemhabar	4
22.	22. (+ QN (c)	Corolla: position of lateral lobes relative to central lobes (viewed from side)	in front	Snowstorm	1
			in line	Innocence	2
			slightly behind	Nemhapin	3
			strongly behind	Nemhabar, New Mystic Girl	4

CPVO N°	UPOV N°	Characteristics	Examples	Note		
23.	23. (+) PQ	Lateral lobe: shape of apex				
			(c)	acute	Masquerade, Pendrop	1
				obtuse	Nemapi	2
				rounded	Intraikum	3
		truncate	Fragrant Gem	4		
24.	24. (* (+) PQ	Upper lobes of corolla: main colour				
			(c)	RHS Colour Chart (indicate reference number)		
25.	25. QN	Upper lobes of corolla: length of veins				
			(c)	short	Imprinno	3
				medium	SUMNEM 03	5
		long		7		
26.	26. (+) QN	Upper lobes of corolla: conspicuousness of veins				
			(c)	very weak	Innocence	1
				weak	Imprinno	2
				medium		3
		strong	SUMNEM 03	4		

CPVO N°	UPOV N°	Characteristics	Examples	Note
27.	27. PQ (c)	Upper lobes of corolla: colour of veins	pink	1
			orange	2
			orange red	3
			red pink	4
			red	5
			purple	6
			violet	7
			violet blue	SUMNEM 03 8
28.	28. (+) QN (c)	Upper lobes of corolla: size of basal blotch	absent or very small	1
			small	Nemhorfla 3
			medium	5
			large	Inuppink 7
29.	29. (+) QN (c)	Upper lobes of corolla: conspicuousness of basal blotch	weak	3
			medium	Inupsaf 5
			strong	Organza 7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
30.	30. PQ (c)	Upper lobes of corolla: colour of basal blotch	white		1
			yellow	Lemon Drops	2
			orange		3
			red	Nemhorfla	4
			purple	Organza	5
			light violet		6
			medium violet	Inupsaf	7
			dark violet	Sunnyside	8
			violet blue		9
31.	31. PQ (c)	Upper lobes of corolla: colour of outer side	RHS Colour Chart (indicate reference number)		
32.	32. (+) QN (c)	Lower lobe of corolla: incurving	absent or weak	SUMNEM 03	1
			medium		2
			strong	Innocence	3
33.	33. (+) QN (c)	Lower lobe of corolla: curvature in cross section	absent or weak	Danish Flag	1
			medium	Balarropi	2
			strong		3

CPVO N°	UPOV N°	Characteristics	Examples	Note	
34.	34. QN	Lower lobe of corolla: undulation (c)	absent or very weak	Organza	1
			weak	SUMNEM 03	3
			medium		5
			strong	Inuppink	7
35.	35. QN	Lower lobe of corolla: indentation of margin (c)	absent or very weak	Organza	1
			weak	Nemhswi	3
			medium		5
			strong	INUPSPINK8	7
36.	36. (* (+)	Lower lobe of corolla (excluding palate): main colour on inner side			
			PQ	(c)	RHS Colour Chart (indicate reference number)
37.	37. (* (+)	Lower lobe of corolla (excluding palate): secondary colour on inner side			
			PQ	(c)	RHS Colour Chart (indicate reference number)

CPVO N°	UPOV N°	Characteristics	Examples	Note	
38.	38. (+) PQ	Lower lobe of corolla (excluding palate): distribution of secondary colour	central zone	SUMNEM08	1
			around palate	Inupsnow	2
			apical and lateral zone	Lemon Drop, SUMNEM06	3
			apical zone	Masquerade	4
39.	39. PQ	Lower lobe of corolla: colour of outer side	RHS Colour Chart (indicate reference number)		
40.	40. (* (+) QN	Palate: size relative to size of lower lobe of corolla	small	Nemhswhi	3
			medium	Nemhabar	5
			large	Inuppink	7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
41.	41. (* (+) PQ (c)	Palate: colour	whitish	Pure Lagoon	1
			light yellow	Nemhapin	2
			medium yellow	Balarropi	3
			dark yellow	Iupguava	4
			yellow orange	Yateye	5
			orange	E0157-1	6
			orange red	KIRINE-15	7
			red		8
			purple		9
			purple violet	Blue Button	10
			brownish	Balarlilabi	11
42.	42. QL (c)	Palate: hairs	absent	Balarropi	1
			present	Organza	9
43.	43. QN (c)	Palate: density of hairs	sparse		3
			medium		5
			dense		7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
44.	44. (* (+) QN (c)	Spur: length in relation to lower lobe of corolla	absent or very short	Organza	1
			short	Sugar Girl	3
			medium	Balarropi	5
			long	SUMNEM 03	7
45.	45. (* (+) QN (c)	Corolla: colour change with age	absent or weak	Innocence	1
			medium	Celine	2
			strong	Claudette	3
46.	46. (* (+) QN (c)	Inflorescence: seed capsules	absent or very sparse	Nemhswhi	1
			sparse		3
			medium	Honey Girl	5
			dense	SUMNEM 03	7

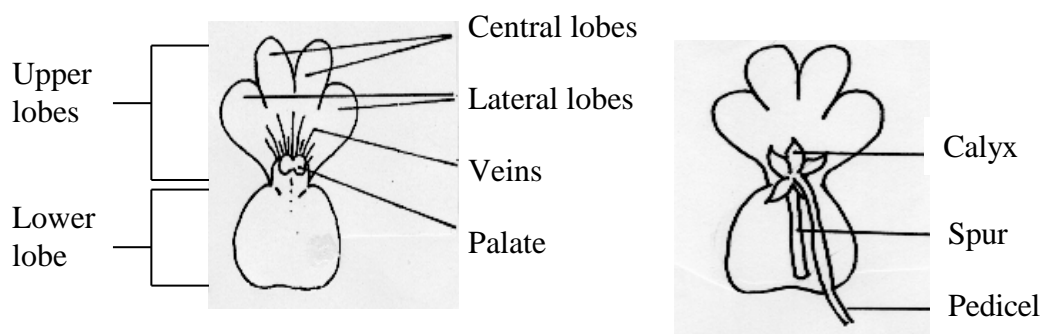
EXPLANATIONS ON THE TABLE OF CHARACTERISTICS

Explanations covering several characteristics

Unless otherwise indicated, all characteristics should be observed at the time of full flowering.

Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

- (a) Observations on the leaf blade should be made on fully expanded leaves from the middle third of a flowering stem, excluding the inflorescence.
- (b) To be observed on the upper surface of the leaf blade.
- (c) Observations on the corolla should be made on fresh fully open flowers.



Explanations covering several characteristics

Ad. 1: Plant: growth habit

The plants should be grown in containers to observe the growth habit.

Ad. 2: Plant: height

Plant height should be measured from the surface of the growing medium/container to the top of the plant.

Ad. 12: Leaf blade: main colour

Ad. 13: Leaf blade: secondary colour

The main colour is the colour with the largest surface area. The secondary colour is the colour with the second largest surface area.

Ad. 14: Inflorescence: density

Observations should be made on the middle third of an inflorescence.

Ad. 16: Corolla: length

Ad. 17: Corolla: width

The natural length and width should be assessed.

Ad. 20: Corolla: relative position of central lobes



1
free

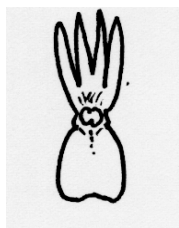


2
touching

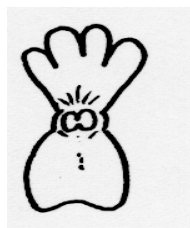


3
overlapping

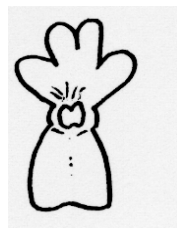
Ad. 21: Corolla: attitude of lateral lobes (viewed from front)



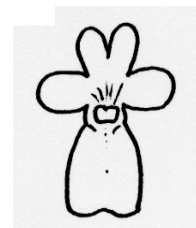
1
upright



2
slightly outwards

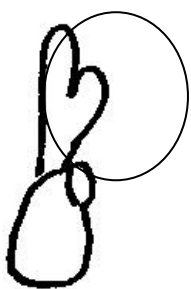


3
moderately outwards

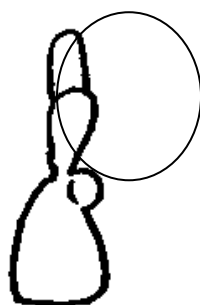


4
horizontal

Ad. 22: Corolla: position of lateral lobes relative to central lobes (viewed from side)



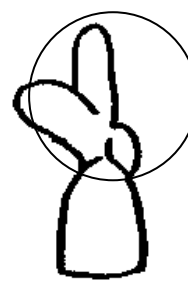
1
in front



2
in line



3
slightly behind



4
strongly behind

Ad. 23: Lateral lobe: shape of apex



1
acute



2
obtuse



3
rounded



4
truncate

Ad. 24: Upper lobes of corolla: main colour

The main colour is the colour with the largest surface area, excluding the veins and basal blotch.

Ad. 26: Upper lobes of corolla: conspicuousness of veins



1
very weak



2
weak



3
medium



4
strong

Ad. 28: Upper lobes of corolla: size of basal blotch



1
absent or very small



2
small



3
medium



4
large

Ad. 29: Upper lobes of corolla: conspicuousness of basal blotch



3
weak



5
medium



7
strong

Ad. 32: Lower lobe of corolla: incurving



1
absent or weak



2
medium



3
strong

To be observed on fully expanded flowers.

Ad. 33: Lower lobe of corolla: curvature in cross section



1
absent or weak



2
medium



3
strong

Ad. 36: Lower lobe of corolla (excluding palate): main colour on inner side

Ad. 37: Lower lobe of corolla (excluding palate): secondary colour on inner side

The main colour is the colour with the largest surface area. The secondary colour is the colour with the second largest surface area.

Ad. 38: Lower lobe of corolla (excluding palate): distribution of secondary colour



1
central zone



2
around palate

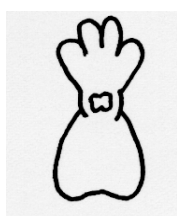


3
apical and lateral
zone

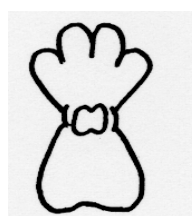


4
apical zone

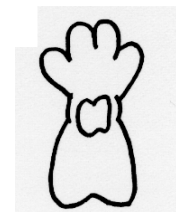
Ad. 40: Palate: size relative to size of lower lobe of corolla



3
small



5
medium



7
large

Ad. 41: Palate: colour

The overall colour of the palate should be observed, including the colour of hairs (if present).

Ad. 45: Corolla: colour change with age

Assess whether all flowers on each individual inflorescence remain the same colour until they drop, or if some proportion of the older flowers remain on the inflorescence at the base but with a marked colour change, giving a “two-tone” effect to the plants.

Ad. 46: Inflorescence: seed capsules

This characteristic should be assessed once the trial has been in full flower for some time. Varieties which set seed will begin to do so rather quickly.

LITERATURE

Brickell, C.,(ed.), 1996: The Royal Horticultural Society A-Z Encyclopedia of Garden Plants. Dorling Kindersley Ltd., London, UK.

Huxley, A., (ed.), Griffiths, M., (ed.), Levy, M., (ed.), 1999: The Royal Horticultural Society Dictionary of Gardening. McMillan Reference Ltd., London, UK.

ANNEX II

The Technical Questionnaire is available on the CPVO website under the following reference:
CPVO-TQ/241/1