Breeder's Ref.

National Food Chain Safety Office

Agricultural Genetic Resources Directorate

Technical questionnaire

tomato

CPVO/TQ-044/4-Rev.5

Mandatory fields or sections are marked with an asterisk (*)

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01 . Botanical taxon: name of the genus, species or sub-species to which the variety belongs:

- ◯ *Solanum lycopersicum* L.
- ◯ *Solanum lycopersicum* L. × *Solanum pimpinellifolium* L.
- ◯ Other species (please specify)

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02 . Application code:

For office use only

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03 . Breeder's reference:

Breeder's Ref.

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04 . Information on the breeding scheme and propagation of the variety

04 . 01 . Type of material *

(this question could be confidential)

- ◯ hybrid
- ◯ cross-pollinated variety
- ◯ self-pollinated variety
- ◯ parent line

04 . 02 . Method of propagation of the variety *

(this question could be confidential)

- ◯ seed propagated
- ◯ vegetatively propagated

04 . 03 . Other information on genetic origin and breeding method

(this question could be confidential)

Please specify

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05 . Characteristics of the variety to be indicated

(the number in brackets refers to the corresponding characteristic in the CPVO Technical Protocol; please mark the state of expression which best corresponds)
The examination offices test the resistances based on the resistance test protocols listed in the CPVO-TP in force. In case the applicant does assess the resistance based on a different protocol than the one mentioned in the CPVO-TP, please be aware that this could lead to discrepancies between your declaration and the results obtained by the examination office. This may also have important consequences on the conduct of the DUS testing as well as trigger additional tests and fees. In addition, for some resistances an alternative DNA marker test exists. As the phenotype is always leading, the declaration in this Technical Questionnaire should not be based on such DNA marker test only.

05 . 01 . Plant: growth type *(2) (G)* *

◯ 1 - determinate	Campbell 1327, Prisca
◯ 2 - indeterminate	Marmande VR, Saint-Pierre, San Marzano 2

05 . 01.01 . Only varieties with plant growth type indeterminate: Plant: height *(6)* *

◯ 1 - very short	Cherry Belle
◯ 2 - very short to short	
◯ 3 - short	Carson, Despina
◯ 4 - short to medium	
◯ 5 - medium	Brooklyn, Buffalo, Vision
◯ 6 - medium to long	
◯ 7 - long	Classy, Clarence, Climberly, Massada
◯ 8 - long to very long	
◯ 9 - very long	Day Dream, Minired

05 . 02 . Leaf: type of blade *(10) (G)* *

◯ 1 - pinnate	Mikado, Pilot, Red Jacket
◯ 2 - bipinnate	Lukullus, Saint-Pierre

05 . 02.01 . Leaf: intensity of green colour *(12)* *

◯ 1 - very light	
◯ 2 - very light to light	
◯ 3 - light	Macero II, Poncette, Rossol
◯ 4 - light to medium	
◯ 5 - medium	Lucy
◯ 6 - medium to dark	
◯ 7 - dark	Allround, Daniela, Lorena, Red Robin
◯ 8 - dark to very dark	
◯ 9 - very dark	

05 . 03 . Peduncle: abscission layer *(19) (G)* *

◯ 1 - absent	Aledo, Bandera, Count, Lerica
◯ 9 - present	Montfavet H 63.5, Roma

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05 . 04 . Fruit: green shoulder (before maturity) *(21) (G)* *

◯ 1 - absent	Felicia, Rio Grande, Trust
◯ 9 - present	Daniela, Montfavet H 63.5

05 . 04.01 . Fruit: green stripes (before maturity) *(25) (G)* *

◯ 1 - absent	Daniela
◯ 9 - present	Green Zebra, Tigerella

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05 . 05 . Fruit: size *(26) (G)* *

- ◯ 1 - very small — Please indicate size in grams
- ◯ 2 - very small to small — Please indicate size in grams
- ◯ 3 - small — Please indicate size in grams
- ◯ 4 - small to medium — Please indicate size in grams
- ◯ 5 - medium — Please indicate size in grams
- ◯ 6 - medium to large — Please indicate size in grams
- ◯ 7 - large — Please indicate size in grams
- ◯ 8 - large to very large — Please indicate size in grams
- ◯ 9 - very large — Please indicate size in grams

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05 . 06 . Fruit: shape in longitudinal section *(28) (G)* *

◯ 1 - flattened	Campbell 28, Marmande VR
◯ 2 - oblate	Montfavet H 63.4, Montfavet H 63.5
◯ 3 - circular	Cerise, Moneymaker
◯ 4 - oblong	Early Mech, Peto Gro
◯ 5 - cylindrical	Hypeel 244, Macero II, San Marzano 2
◯ 6 - elliptic	Alcaria, Castone
◯ 7 - cordate	Valenciano
◯ 8 - ovate	Dualrow, Soto
◯ 9 - obovate	Duquesta, Estelle Rimone, Rio Grande
◯ 10 - pyriform	Europeel
◯ 11 - obcordate	Cuore del Ponente, Magno

05 . 06.01 . Fruit: ribbing at peduncle end *(29)* *

◯ 1 - absent or very weak	Calimero, Cerise
◯ 2 - very weak to weak	
◯ 3 - weak	Early Mech, Hypeel 244, Melody, Peto Gro, Rio Grande
◯ 4 - weak to medium	
◯ 5 - medium	Montfavet H 63.4, Montfavet H 63.5
◯ 6 - medium to strong	
◯ 7 - strong	Campbell 1327, Carmello, Count
◯ 8 - strong to very strong	
◯ 9 - very strong	Costoluto Fiorentino, Ingrid, Marmande VR

05 . 07 . Fruit: number of locules *(36) (G)* *

◯ 1 - only two	Early Mech, Europeel, San Marzano
◯ 2 - two or three	Alphamech, Futuria
◯ 3 - three or four	Montfavet H 63.5
◯ 4 - four, five or six	Raïssa, Tradiro
◯ 5 - more than six	Marmande VR

05 . 07.01 . Do fruits of the variety reach maturity? *

◯ Yes

◯ No

05 . 07.02 . LSL genes *

◯ 1 - absent

◯ 9 - present

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05 . 07.03 . If LSL Genes present

◯ 1 - NOR gene homozygous	
◯ 2 - NOR gene heterozygous	
◯ 3 - RIN gene homozygous	
◯ 4 - RIN gene heterozygous	
◯ 5 - other gene	Please specify

05 . 07.04 . Fruit: gel in locules *

◯ 1 - absent	
◯ 9 - present	

05 . 08 . Fruit: colour at maturity *(37)* *

◯ 1 - cream	Jazon, White Mirabell
◯ 2 - yellow	Goldene Königin, Yellow Pear
◯ 3 - orange	Sungold
◯ 4 - pink	Aichi First
◯ 5 - red	Dianela, Ferline, Montfavet H 63.5
◯ 6 - brown	Ozyrys
◯ 7 - green	Green Grape, Green Zebra

05 . 08.01 . Fruit: firmness *(40)* *

◯ 1 - very soft	Marmande VR
◯ 2 - very soft to soft	
◯ 3 - soft	Trend
◯ 4 - soft to medium	
◯ 5 - medium	Cristina
◯ 6 - medium to firm	
◯ 7 - firm	Fernova, Konsul, Tradiro
◯ 8 - firm to very firm	
◯ 9 - very firm	Dianela, Karat, Lolek

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05 . 08.02 . Time of maturity *(42)* *

◯ 1 - very early	Dolcevita, Sungold, Sweet Baby
◯ 2 - very early to early	
◯ 3 - early	Bianca, Rossol, Shiren
◯ 4 - early to medium	
◯ 5 - medium	Gourmet, UC 82B
◯ 6 - medium to late	
◯ 7 - late	Arletta, Durinta
◯ 8 - late to very late	
◯ 9 - very late	Dianela

05 . 09 . Resistance to *Meloidogyne incognita* (Mi) *(43) (G)* *

◯ 1 - susceptible	Casaque Rouge
◯ 2 - moderately resistant	Campeon, Tyonic
◯ 3 - highly resistant	Anahu x Casaque Rouge

05 . 10 . Resistance to *Verticillium* sp. (Va and Vd) - Race 0 *(44) (G)* *

◯ 1 - absent	Anabel, Marmande verte
◯ 9 - present	Daniela, Marmande VR

05 . 11 . Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 0EU/1US *(45.1) (G)* *

◯ 1 - absent	Marmande, Marmande verte, Resal
◯ 9 - present	Gourmet, Larissa, Marporum, "Marporum x Marmande verte", Mohawk, Motelle, Riesling

05 . 12 . Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 1EU/2US *(45.2) (G)* *

◯ 1 - absent	Cherry Belle, Marmande verte, Marporum, Ranco, Roma
◯ 9 - present	Agostino, "Motelle x Marmande verte", Odisea, Tradiro

05 . 13 . Resistance to *Tomato mosaic virus* (ToMV) - Strain 0 *(48.1) (G)* *

◯ 1 - absent	Monalbo, Moneymaker
◯ 9 - present	Mobaci, Mocimor, Momor, Moperou

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06 . Similar varieties and differences from these varieties

Please note that information on similar varieties may help to identify comparable varieties and can avoid an additional period of testing.

06 . 01 . Are there any similar varieties known? *

◯ Yes

◯ No

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06 . 02 . Similar varieties and differences from these varieties: *

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety

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07 . Additional information which may help to distinguish the variety *

07 . 01 . In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety? *

- ◯ Yes, specify
- ◯ No

07 . 02 . Are there any special conditions for growing the variety or conducting the examination? *

07 . 02.01 . Type of culture *

- ◯ in the greenhouse
- ◯ in the open field

07 . 02.02 . Details of type of culture *

- ◯ staked
- ◯ semi-staked
- ◯ non-staked

07 . 02.03 . Main use *

- ☐ fresh market or garden
- ☐ industrial processing (indicate type)
- ☐ pot plant
- ☐ rootstock

07 . 02.03.01 . Details of main use

- ◯ single
- ◯ truss
- ◯ other

Please specify

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07 . 02.03.02 . Details of main use

- ◯ peel
- ◯ paste
- ◯ other

Please specify

07 . 02.04 . Are there any special conditions for growing the variety or conducting the examination? *

- ◯ Yes
- ◯ No

07 . 03 . Other information

07 . 03.01 . Resistances to pests and diseases (please specify races/strains if possible) *

The examination offices test the resistances based on the resistance test protocols listed in the CPVO-TP in force. In case the applicant does assess the resistance based on a different protocol than the one mentioned in the CPVO-TP, please be aware that this could lead to discrepancies between your declaration and the results obtained by the examination office. This may also have important consequences on the conduct of the DUS testing as well as trigger additional tests and fees. In addition, for some resistances an alternative DNA marker test exists. As the phenotype is always leading, the declaration in this Technical Questionnaire should not be based on such DNA marker test only.

07 . 03.01.01 . Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 2EU/3US *(45.3)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.02 . Resistance to *Fusarium oxysporum* f. sp. *radicis-lycopersici* (Forl) *(46)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.02 . Resistance to *Fusarium oxysporum* f. sp. *radicis-lycopersici* (Forl) - indeterminate types *(46)* *

- ◯ absent
- ◯ present

07 . 03.01.03 . Resistance to *Passalora fulva* Race 0 *(47.1)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.04 . Resistance to *Passolora fulva* Group A - determinate types *(47.2)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.04 . Resistance to *Passolora fulva* Group A - indeterminate types *(47.2)* *

- ◯ absent
- ◯ present

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07 . 03.01.05 . Resistance to *Passolora fulva* Group B - determinate types *(47.3)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.05 . Resistance to *Passolora fulva* Group B - indeterminate types *(47.3)* *

- ◯ absent
- ◯ present

07 . 03.01.06 . Resistance to *Passolora fulva* Group C - determinate types *(47.4)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.06 . Resistance to *Passolora fulva* Group C - indeterminate types *(47.4)* *

- ◯ absent
- ◯ present

07 . 03.01.07 . Resistance to *Passolora fulva* Group D - determinate types *(47.5)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.07 . Resistance to *Passolora fulva* Group D - indeterminate types *(47.5)* *

- ◯ absent
- ◯ present

07 . 03.01.08 . Resistance to *Passolora fulva* Group E - determinate types *(47.6)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.08 . Resistance to *Passolora fulva* Group E - indeterminate types *(47.6)* *

- ◯ absent
- ◯ present

07 . 03.01.09 . Resistance to *Tomato mosaic virus* (ToMV) strain 1 *(48.2)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.10 . Resistance to *Tomato mosaic virus* (ToMV) strain 2 *(48.3)* *

- ◯ absent
- ◯ present
- ◯ not tested

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07 . 03.01.11 . Resistance to *Phytophtora infestans* (Pi) *(49)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.12 . Resistance to *Pyrenochaeta lycopersici* (Pl) *(50)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.13 . Resistance to *Stemphylium* spp. (Ss) *(51)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.14 . Resistance to *Pseudomonas syringae* pv. *tomato* (Pst) - determinate types *(52)* *

- ◯ absent
- ◯ present

07 . 03.01.14 . Resistance to *Pseudomonas syringae* pv. *tomato* (Pst) - indeterminate types *(52)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.15 . Resistance to *Ralstonia salonacearum* race 1 (Rs) *(53)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.16 . Resistance to *Tomato yellow leaf curl virus* (TYLCV) *(54)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.17 . Resistance to *Tomato spotted wilt virus* (TSWV) - Strain 0 *(55) (G)* *

- ◯ absent
- ◯ present

07 . 03.01.18 . Resistance to *Leveillula taurica* (Lt) *(56)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.19 . Resistance to *Oidium neolycopersici* (On) (ex *Oidium lycopersicum* (Ol)) *(57)* *

- ◯ absent
- ◯ present
- ◯ not tested

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07 . 03.01.20 . Resistance to *Tomato torrado virus* (ToTV) *(58)* *

- ◯ absent
- ◯ present
- ◯ not tested

07 . 03.01.21 . Other resistances

Please specify

07 . 03.02 . Other information *

- ◯ Yes, specify
- ◯ No

07 . 04 . Photo

It is highly recommended to provide pictures (especially fruits at maturity). Otherwise, the organisation of the technical examination will be rendered less efficient, with the risk of an additional year of technical examination at the costs of the applicant.

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08 . GMO-information

08 . 01 . GMO-information required *

The variety represents a Genetically Modified Organism within the meaning of Article 2(2) of Council Directive EC/2001/18 of 12/03/2001.

- ◯ Yes

If yes, please attach in point 08.02 a copy of the written attestation of the responsible authorities stating that a technical examination of the variety under Articles 55 and 56 of the Basic Regulation does not pose risks to the environment according to the norms of the above-mentioned Directive.

- ◯ No

08 . 02 . In case of GMO, joint attestation of the responsible authorities stating that a technical examination of the variety under Articles 55 and 56 of the Basic Regulation does not pose risks to the environment according to the norms of the above-mentioned Directive.

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09 . Information on plant material to be examined

The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc. Consequently the plant material to be examined should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

09 . 01 . Micro-organisms (e.g. virus, bacteria, phytoplasma) *

- ◯ Yes, specify
- ◯ No

09 . 02 . Chemical treatment (e.g. growth retardant or pesticide) *

- ◯ Yes, specify
- ◯ No

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09 . 03 . Tissue culture *

- ◯ Yes, specify
- ◯ No

09 . 04 . Other factors *

- ◯ Yes, specify
- ◯ No

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DECLARATIONS *

I/we hereby declare that to the best of my/our knowledge the information given in this form is complete and correct.

Place

Date

Name

Signature

Print Reset