



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

Method parameters

Method AB444 – MVA-24 - Preparation of dosing units
Method saving date 2024-02-23 13:32:27 UTC+1
Method version 1
Method group Main group
Method status original
Method saved by (full name) Metrohm International Headquarters
Method saved by (short name) Metrohm

START

Main track

General

Workplace view

Current view on

Track view for live window

Live display 1 Main track

Live display 2 Main track

Electrode check on

Application note

Enter the number of preparation cycles for each Dosing Unit. If the Dosing Unit should not be prepared, enter 0. 50 mL VMS 1 - Prep cycles – Number of preparation cycles for DU «50 mL VMS 1» 50 mL VMS 2 - Prep cycle – Number of preparation cycles for DU «50 mL VMS 2» 2 mL Suppressor- Prep cycle – Number of preparation cycles for DU «2 mL Suppressor» 2 mL Brightener- Prep cycle – Number of preparation cycles for DU «2 mL Brightener» 5 mL Standard or sample - Prep cycle – Number of preparation cycles for DU «5 mL Standard or sample» Position rinsing solution – Rack position of the solution used to prepare DU «5 mL Standard or sample»

Sample data variables

Name	Type	Assignment	Fixed value	Comment	Monitoring
ID1	Text	ID1		Preparation of Sample identification 1	off
50 mL VMS 1 - Prep	Number	ID2		Number of preparation	off
50 mL VMS 2 - Prep	Number	ID3		Number of preparation	off
2 mL Suppressor -	Number	ID4		Number of preparation	off
2 mL Brightener - Prep	Number	ID5		Number of preparation	off
5 mL Standard or	Number	ID6		Number of preparation	off
Position rinsing	Number	ID7	28	Position on the rack for the	off

Name ID1
Type Text
Assignment on. ID1
Fixed value on. Preparation of Dosing Units
Check at start on



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

Comment Sample identification 1

Name **50 mL VMS 1 - Prep cycles**

Type Number

Assignment on. ID2

Fixed value off.

Check at start on

Comment Number of preparation cycles for DU «50 mL VMS
1»

Variable monitoring off

Lower limit

Upper limit

Message

Display message on

Record message on

Message by e-mail off

E-mail template

Subject Message from viva - method 'New method 4' - command 'Main
track'

Acoustic signal off

Action off

Cancel determination on

Cancel determination and series off

Name **50 mL VMS 2 - Prep cycles**

Type Number

Assignment on. ID3

Fixed value off.

Check at start on

Comment Number of preparation cycles for DU «50 mL VMS
2»

Variable monitoring off

Lower limit

Upper limit

Message

Display message on

Record message on

Message by e-mail off

E-mail template

Subject Message from viva - method 'New method 4' - command 'Main
track'

Acoustic signal off

Action off

Cancel determination on

Cancel determination and series off

Name **2 mL Suppressor - Prep cycles**



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

Type	Number
Assignment	on. ID4
Fixed value	off.
Check at start	on
Comment	Number of preparation cycles for DU «2 mL Suppressor»
Variable monitoring	off
Lower limit	
Upper limit	
Message	
Display message	on
Record message	on
Message by e-mail	off
E-mail template	
Subject	Message from viva - method 'New method 4' - command 'Main track'
Acoustic signal	off
Action	off
Cancel determination	on
Cancel determination and series	off

Name	2 mL Brightener - Prep cycles
Type	Number
Assignment	on. ID5
Fixed value	off.
Check at start	on
Comment	Number of preparation cycles for DU «2 mL Brightener»
Variable monitoring	off
Lower limit	
Upper limit	
Message	
Display message	on
Record message	on
Message by e-mail	off
E-mail template	
Subject	Message from viva - method 'New method 4' - command 'Main track'
Acoustic signal	off
Action	off
Cancel determination	on
Cancel determination and series	off

Name	5 mL Standard or sample - Prep cycles
Type	Number
Assignment	on. ID6



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

Fixed value off.
Check at start on
Comment Number of preparation cycles for DU «5 mL
Standard or sample»
Variable monitoring off
Lower limit
Upper limit
Message
Display message on
Record message on
Message by e-mail off
E-mail template
Subject Message from viva - method 'New method 4' - command 'Main
track'
Acoustic signal off
Action off
Cancel determination on
Cancel determination and series off

Name **Position rinsing solution**
Type Number
Assignment on. ID7
Fixed value on. 28
Check at start on
Comment Position on the rack for the solution used to
prepare DU «5 mL Sample or standard»
Variable monitoring off
Lower limit
Upper limit
Message
Display message on
Record message on
Message by e-mail off
E-mail template
Subject Message from viva - method 'New method 4' - command 'Main
track'
Acoustic signal off
Action off
Cancel determination on
Cancel determination and series off

Command comment

AB-444/1: MVA-24 - Preparation of dosing units «5 mL Standard or sample», «50 mL
VMS 1», «50 mL VMS 2», «2 mL Suppressor», and «2 mL Brightener»

CALL

Empty measuring vessel



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

Call text	Track name	Sample type		Condition
Empty measuring vessel	Drain	off	Sample	off

CALL**Prepare DUs**

Call text	Track name	Sample type		Condition
Prep 5 mL Standard or sample	5 mL Standard or sample	off	Sample	on = 'SD.5 mL Standard or sample - Prep cycles' > 0
Prep 50 mL VMS 1	50 mL VMS 1	off	Sample	on = 'SD.50 mL VMS 1 - Prep cycles' > 0
Prep 50 mL VMS 2	50 mL VMS 2	off	Sample	on = 'SD.50 mL VMS 2 - Prep cycles' > 0
Prep 2 mL Suppressor	2 mL Suppressor	off	Sample	on = 'SD.2 mL Suppressor - Prep cycles' > 0
Prep 2 mL Brightener	2 mL Brightener	off	Sample	on = 'SD.2 mL Brightener - Prep cycles' > 0

CALL**Final rinsing**

Call text	Track name	Sample type		Condition
Final rinsing	Rinsing	off	Sample	off

TRACK**5 mL Standard or sample**

Return immediately off
Delete old data off

MOVE**Move to rinsing vial****Device**

Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor

Target

Tower 1
Move Rack position
Number = 'SD.Position rinsing solution'

Beaker test

Display message on
Cancel determination off
Cancel determination and series off

Parameters

Shift rate 20 %/s



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

Shift direction auto
Swing rate 55 °/s

LIFT

Lift → Work position

Device

Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor

Target

Tower 1
Lift position Work position mm

Parameters

Lift rate 25 mm/s

LOOP

Cycles - 5 mL SampleStand

Stop criteria

Max. run number on
Max. run number = 'SD.5 mL Standard or sample - Prep cycles'
Maximum run time off
Signal assessment for DT off
Condition on
Condition

PREP

Prep 5 mL Standard or sam

Dosing device

Dosing unit 5 mL Standard or sample

PUMP

Drain after 5mL DU

Device

Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor

Pumps

Tower 1
Pump(s) 1

Action

Switch on off
Switch off off
Duration on
Time 5 s

LIFT

Lift → Shift position

Device

Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor

Target

Tower 1
Lift position Shift position mm

Parameters

Lift rate 25 mm/s



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

TRACK	50 mL VMS 1	
	Return immediately	off
	Delete old data	off
LOOP	Cycles - 50 mL VMS 1	
	Stop criteria	
	Max. run number	on
	Max. run number	= 'SD.50 mL VMS 1 - Prep cycles'
	Maximum run time	off
	Signal assessment for DT	off
	Condition	off
PREP	Prep 50 mL VMS 1	
	Dosing device	
	Dosing unit	50 mL VMS 1
PUMP	Drain 50mL VMS1	
	Device	
	Device name	858 Sample Processor
	Device type	858.0010 Professional Sample Processor
	Pumps	
	Tower	1
	Pump(s)	1
	Action	
	Switch on	off
	Switch off	off
	Duration	on
	Time	5 s
TRACK	50 mL VMS 2	
	Return immediately	off
	Delete old data	off
LOOP	Cycles - 50 mL VMS 2	
	Stop criteria	
	Max. run number	on
	Max. run number	= 'SD.50 mL VMS 2 - Prep cycles'
	Maximum run time	off
	Signal assessment for DT	off
	Condition	off
PREP	Prep 50 mL VMS 2	
	Dosing device	
	Dosing unit	50 mL VMS 2
PUMP	Drain 50mL VMS2	
	Device	
	Device name	858 Sample Processor
	Device type	858.0010 Professional Sample Processor



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

Pumps

Tower 1
Pump(s) 1

Action

Switch on off
Switch off off
Duration on
Time 5 s

TRACK 2 mL Suppressor

Return immediately off
Delete old data off

LOOP Cycles - 2 mL Suppressor

Stop criteria

Max. run number on
Max. run number = 'SD.2 mL Suppressor - Prep cycles'
Maximum run time off
Signal assessment for DT off
Condition off

PREP Prep 2 mL Suppressor

Dosing device

Dosing unit 2 mL Suppressor

PUMP Drain 2mL Suppressor

Device

Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor

Pumps

Tower 1
Pump(s) 1

Action

Switch on off
Switch off off
Duration on
Time 5 s

TRACK 2 mL Brightener

Return immediately off
Delete old data off

LOOP Cycles - 2 mL Brightener

Stop criteria

Max. run number on
Max. run number = 'SD.2 mL Brightener - Prep cycles'
Maximum run time off
Signal assessment for DT off



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

Condition off

PREP Prep 2 mL Brightener

Dosing device

Dosing unit 2 mL Brightener

PUMP Drain 2mL Brightener

Device

Device name 858 Sample Processor

Device type 858.0010 Professional Sample Processor

Pumps

Tower 1

Pump(s) 1

Action

Switch on off

Switch off off

Duration on

Time 5 s

TRACK Rinsing

Return immediately off

Delete old data off

STIR Stirrer ON

Device

Device name 884_1

Device type 884 Professional VA

Stirrer

Stirring rate 2500 min⁻¹

Action

Switch on on

Switch off off

Duration off

Time 300 s

CALL Flush with water

Call text	Track name	Sample type		Condition
Rinse	Rinse	off	Sample	off

LOOP Rinsing cycles

Stop criteria

Max. run number on

Max. run number 1

Maximum run time off

Signal assessment for DT off

Condition off



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

CALL CALL Drain

Call text	Track name	Sample type	Condition
Drain	Drain	off Sample	off

CALL CALL Rinse

Call text	Track name	Sample type	Condition
Rinse	Rinse	off Sample	off

TRACK Rinse

Return immediately off
Delete old data off

PUMP Rinsing time

Device
Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor
Pumps
Tower 1
Pump(s) 2
Action
Switch on off
Switch off off
Duration on
Time 18 s

TRACK Drain

Return immediately off
Delete old data off

PUMP Draining time

Device
Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor
Pumps
Tower 1
Pump(s) 1
Action
Switch on off
Switch off off
Duration on
Time 50 s

TRACK Shut OFF

Return immediately off
Delete old data off



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69
2024-02-23 13:33:36 UTC+1

PUMP Rinse Drain pumps OFF

Device

Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor

Pumps

Tower 1
Pump(s) 1+2

Action

Switch on off
Switch off on
Duration off
Time 8.0 s

STIR Stirrer OFF

Device

Device name 884_1
Device type 884 Professional VA

Stirrer

Stirring rate 2500 min⁻¹

Action

Switch on off
Switch off on
Duration off
Time 300 s

SERIES START Series start track

RACK RACK INIT

Device

Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor
Rack test on
Test rack 6.2041.450

SERIES END Series end track

CALL Series end shut OFF

Call text	Track name	Sample type	Condition
Shut OFF	Shut OFF	off Sample	off

LIFT Needle → Shift position

Device

Device name 858 Sample Processor
Device type 858.0010 Professional Sample Processor



License ID 1955606
Client ID 001-NBK-02363
User Metrohm

Program version viva 3.0 - 69

2024-02-23 13:33:36 UTC+1

Target

Tower 1

Lift position Shift position mm

Parameters

Lift rate 25 mm/s

EXIT Exit track

CALL Exit shut off

Call text	Track name	Sample type		Condition
Exit shut off	Shut OFF	off	Sample	off

ERROR Error track

CALL Error shut off

Call text	Track name	Sample type		Condition
Error shut off	Shut OFF	off	Sample	off