

Audit - EU DK MAL Code

PHENGUARD 940 BASE GREY

Denmark MAL Code

Audit - MAL Code

EU Denmark MAL Code:- 3-5

The MAL Code calculations are performed with product and component data.

Product is a Liquid

PHENGUARD 940 BASE GREY - Components considered for the MAL Code calculation.

BARIUM SULFATE (32.571%) {Denmark MAL Code}

CAS: 7727437

Density: 4.5

Molecular Weight: 233.4

Boiling Point: 1599.85

No LBL Factor entered or estimated from CAS Number or Boiling Point.

MAL Factor entered: 0. Limit: 0

FAD entered: 1; Lower Limit: 0

FAD 1 Quotient = 32571

phenol, polymer with formaldehyde, glycidyl ether MW<=700 (23.52%) {Denmark MAL Code}

CAS: 28064144

Density: 0

No LBL Factor entered or estimated from CAS Number or Boiling Point.

MAL Factor entered: 0. Limit: 0

FAD entered: 5; Lower Limit: 0.1

FAD 5 Quotient = 235.2

XYLENES (11.369718%) {Denmark MAL Code}

Organic Solvent.

CAS: 1330207

Density: 0.86

Relative Density: 0.861

Molecular Weight: 106.17

Boiling Point: 136.16

Vapour Pressure: 6.7

No LBL Factor entered or estimated from CAS Number or Boiling Point.

MAL Factor entered: 46. Limit: 0

FAD entered: 3; Lower Limit: 10

FAD 3 Quotient = 1.137

FAD 1 Quotient = 56.849

CHLORITE-GROUP MINERALS (7.128%) {Denmark MAL Code}

CAS: 1318598

Density: 2.8

No LBL Factor entered or estimated from CAS Number or Boiling Point.

MAL Factor entered: 0. Limit: 0

FAD entered: 1; Lower Limit: 0.1

FAD 1 Quotient = 71.28
MICA (5.94%) {Denmark MAL Code}
CAS: 12001262
Density: 2.8
Relative Density: 2.6
Molecular Weight: 797
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: 0.1
FAD 1 Quotient = 59.4

TITANIUM DIOXIDE (5.69967%) {Denmark MAL Code}
Carcinogen.
CAS: 13463677
Density: 4.1
Relative Density: 4.26
Molecular Weight: 79.9
Boiling Point: 2750
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: 0
FAD 1 Quotient = 5699.67

QUARTZ (>10 microns) (3.564%) {Denmark MAL Code}
Carcinogen.
CAS: 14808607
Density: 0
Relative Density: 2.6
Molecular Weight: 60.09
Boiling Point: 2230
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: 0.1
FAD 1 Quotient = 35.64

ISOBUTYL ALCOHOL (3.4%) {Denmark MAL Code}
Organic Solvent.
CAS: 78831
Density: 0.802
Relative Density: 0.8
Molecular Weight: 74.14
Boiling Point: 108
Vapour Pressure: 10.8
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 67. Limit: 0
FAD entered: 1; Lower Limit: 0
FAD 1 Quotient = 3400

QUARTZ (<10 microns) (3.168%) {Denmark MAL Code}
Carcinogen.
CAS: 14808607
Density: 0

Relative Density: 2.6
Molecular Weight: 60.09
Boiling Point: 2230
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 3; Lower Limit: 1
FAD 6 Quotient = 0.317
FAD 3 Quotient = 3.168

ETHYLBENZENE (2.022%) {Denmark MAL Code}

Organic Solvent.
Carcinogen.
CAS: 100414
Density: 0.866
Relative Density: 0.9
Molecular Weight: 106.18
Boiling Point: 136.1
Vapour Pressure: 9.3
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 46. Limit: 0
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.
FAD 3 Quotient = 0.202

Castor Oil Derivative (0.6008%) {Denmark MAL Code}

CAS: SUB114071
Density: 1.1
No LBL Factor entered or estimated from CAS Number or Boiling Point.
No MAL Factor calculated.
FAD: 1. (Default)
FAD 1 Quotient = 600.8

STRONTIUM SULFATE (0.2632%) {Denmark MAL Code}

CAS: 7759026
Density: 3.96
Molecular Weight: 183.68
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: 0.1
FAD 1 Quotient = 2.632

ALUMINUM HYDROXIDE (0.21%) {Denmark MAL Code}

CAS: 21645512
Density: 2.42
Molecular Weight: 78
Vapour Pressure: 0.072
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: 0.1
FAD 1 Quotient = 2.1

Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine (0.1992%) {Denmark MAL Code}

CAS: 100545480
Density: 1.04

Vapour Pressure: 0

No LBL Factor entered or estimated from CAS Number or Boiling Point.

R Phrases: R43 R52/53

MAL Factor from Sub-Annex 2: 0

FAD: 1. (Default)

FAD 1 Quotient = 199.2

CARBON BLACK (0.1%) {Denmark MAL Code}

Carcinogen.

CAS: 1333864

Density: 1.8

Relative Density: 1.95

Molecular Weight: 12.01

Boiling Point: 4200

Vapour Pressure: 0

No LBL Factor entered or estimated from CAS Number or Boiling Point.

MAL Factor entered: 0. Limit: 0

FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.

FAD 6 Quotient = 0.004

FAD 3 Quotient = 0.01

TOLUENE (0.08626%) {Denmark MAL Code}

Organic Solvent.

CAS: 108883

Density: 0.87

Relative Density: 0.87

Molecular Weight: 92.14

Boiling Point: 110.6

Vapour Pressure: 23.17

No LBL Factor entered or estimated from CAS Number or Boiling Point.

MAL Factor entered: 74. Limit: 0

FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.

FAD 3 Quotient = 0.009

WATER (0.0658%) {Denmark MAL Code}

CAS: 7732185

Density: 1

Molecular Weight: 18.02

Boiling Point: 100

Vapour Pressure: 23.8

No LBL Factor entered or estimated from CAS Number or Boiling Point.

MAL Factor entered: 0. Limit: 0

FAD entered: 0; Lower Limit: 0

SILICA (0.06%) {Denmark MAL Code}

CAS: 7631869

Density: 2

Relative Density: 2.2

Molecular Weight: 60.08

Boiling Point: 2230

No LBL Factor entered or estimated from CAS Number or Boiling Point.

MAL Factor entered: 0. Limit: 0

FAD entered: 1; Lower Limit: 0
FAD 1 Quotient = 60
ZIRCONIUM OXIDE (0.03%) {Denmark MAL Code}
CAS: 1314234
Density: 5.85
Molecular Weight: 123.22
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.
FAD 1 Quotient = 0.3

BENZENE (0.002022%) {Denmark MAL Code}
Organic Solvent.
Carcinogen.
CAS: 71432
Density: 0.877
Relative Density: 0.88
Molecular Weight: 78.12
Boiling Point: 80.09
Vapour Pressure: 75.01
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 880. Limit: 0
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.
FAD 6 Quotient = 0.020

TIN (0.000186%) {Denmark MAL Code}
CAS: 7440315
Density: 7.2
Relative Density: 7.28
Molecular Weight: 118.69
Boiling Point: 2260
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor from OEL: 0
R Phrases: None
FAD: 1. (Default)
FAD 1 Quotient = 0.186

ARSENIC (0.000078%) {Denmark MAL Code}
Carcinogen.
CAS: 7440382
Density: 5.7
Relative Density: 5.73
Molecular Weight: 74.92
Vapour Pressure: 0
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.
FAD 6 Quotient = 0.000

NICKEL (0.00003%) {Denmark MAL Code}
Carcinogen.
CAS: 7440020

Density: 8.9
Relative Density: 8.9
Molecular Weight: 58.71
Boiling Point: 2730
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.
FAD 5 Quotient = 0.000
FAD 6 Quotient = 0.000

ANTIMONY (0.000018%) {Denmark MAL Code}

CAS: 7440360
Density: 6.7
Molecular Weight: 121.75
Boiling Point: 1635
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor from OEL: 0
R Phrases: Xn;R22 Xn;R20 N;R51/53
FAD: 1. (Default)
FAD 1 Quotient = 0.018

BARIUM (0.000012%) {Denmark MAL Code}

CAS: 7440393
Density: 3.6
Relative Density: 3.6
Molecular Weight: 137.34
Boiling Point: 1640
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor from OEL: 0
R Phrases: F;R15 Xi;R38 Xi;R36 Xi;R37
FAD: 1. (Default)
FAD 1 Quotient = 0.012

CHROMIUM (0.000006%) {Denmark MAL Code}

CAS: 7440473
Density: 7.15
Relative Density: 7.14
Molecular Weight: 52
Boiling Point: 2642
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.
FAD 3 Quotient = 0.000

Density = 1.779. Entered value.

Figure-before-the dash = 3

BARIUM SULFATE(@32.57%). MAL Factor = 0. Total increased by 32.57*0=0. Running Total = 0

phenol, polymer with formaldehyde, glycidyl ether MW<=700(@23.52%). MAL Factor = 0. Total increased by 23.52*0=0. Running Total = 0

XYLENES(@11.37%). MAL Factor = 46. Total increased by 11.37*46=523.01. Running Total = 523.01

CHLORITE-GROUP MINERALS(@7.13%). MAL Factor = 0. Total increased by 7.13*0=0. Running Total = 523.01

MICA(@5.94%). MAL Factor = 0. Total increased by 5.94*0=0. Running Total = 523.01

TITANIUM DIOXIDE(@5.70%). MAL Factor = 0. Total increased by 5.70*0=0. Running Total = 523.01

QUARTZ (>10 microns)(@3.56%). MAL Factor = 0. Total increased by $3.56 \times 0 = 0$. Running Total = 523.01
ISOBUTYL ALCOHOL(@3.4%). MAL Factor = 67. Total increased by $3.4 \times 67 = 227.8$. Running Total = 750.81
QUARTZ (<10 microns)(@3.17%). MAL Factor = 0. Total increased by $3.17 \times 0 = 0$. Running Total = 750.81
ETHYLBENZENE(@2.02%). MAL Factor = 46. Total increased by $2.02 \times 46 = 93.01$. Running Total = 843.82
STRONTIUM SULFATE(@0.26%). MAL Factor = 0. Total increased by $0.26 \times 0 = 0$. Running Total = 843.82
ALUMINIUM HYDROXIDE(@0.21%). MAL Factor = 0. Total increased by $0.21 \times 0 = 0$. Running Total = 843.82
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine(@0.20%). MAL Factor = 0. Total increased by $0.20 \times 0 = 0.00$. Running Total = 843.82
CARBON BLACK(@0.1%). MAL Factor = 0. Total increased by $0.1 \times 0 = 0$. Running Total = 843.82
TOLUENE(@0.09%). MAL Factor = 74. Total increased by $0.09 \times 74 = 6.38$. Running Total = 850.20
WATER(@0.07%). MAL Factor = 0. Total increased by $0.07 \times 0 = 0$. Running Total = 850.20
SILICA(@0.06%). MAL Factor = 0. Total increased by $0.06 \times 0 = 0$. Running Total = 850.20
ZIRCONIUM OXIDE(@0.03%). MAL Factor = 0. Total increased by $0.03 \times 0 = 0$. Running Total = 850.20
BENZENE(@0.00%). MAL Factor = 880. Total increased by $0.00 \times 880 = 1.78$. Running Total = 851.98
TIN(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0.00$. Running Total = 851.98
ARSENIC(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0$. Running Total = 851.98
NICKEL(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0$. Running Total = 851.98
ANTIMONY(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0.00$. Running Total = 851.98
BARIUM(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0.00$. Running Total = 851.98
CHROMIUM(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0$. Running Total = 851.98

Figure-before-the-dash calculated as 3. Via MAL Factor Total * Density (851.98 * 1.779) giving a MAL Number of 1516

MAL Number = Density (1.779) * Sum (851.98) = 1516

Figure-after-the-dash = 5. Calculated from component data.

BARIUM SULFATE (@32.57%) Increasing Total for FAD1 by 32571, giving 32571
phenol, polymer with formaldehyde, glycidyl ether MW <= 700 (@23.52%) Increasing Total for FAD5 by 235.2, giving 235.2
XYLENES (@11.37%) Increasing Total for FAD3 by 1.1369718, giving 1.1369718
XYLENES (@11.37%) Increasing Total for FAD1 by 56.84859, giving 32627.84859
CHLORITE-GROUP MINERALS (@7.13%) Increasing Total for FAD1 by 71.28, giving 32699.12859
MICA (@5.94%) Increasing Total for FAD1 by 59.4, giving 32758.52859
TITANIUM DIOXIDE (@5.70%) Increasing Total for FAD1 by 5699.67, giving 38458.19859
QUARTZ (>10 microns) (@3.56%) Increasing Total for FAD1 by 35.64, giving 38493.83859
ISOBUTYL ALCOHOL (@3.4%) Increasing Total for FAD1 by 3400, giving 41893.83859
QUARTZ (<10 microns) (@3.17%) Increasing Total for FAD6 by 0.3168, giving 0.3168
QUARTZ (<10 microns) (@3.17%) Increasing Total for FAD3 by 3.168, giving 4.3049718
ETHYLBENZENE (@2.02%) Increasing Total for FAD3 by 0.2022, giving 4.5071718
Castor Oil Derivative (@0.60%) Increasing Total for FAD1 by 600.8, giving 42494.63859
STRONTIUM SULFATE (@0.26%) Increasing Total for FAD1 by 2.632, giving 42497.27059
ALUMINIUM HYDROXIDE (@0.21%) Increasing Total for FAD1 by 2.1, giving 42499.37059
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine (@0.20%) Increasing Total for FAD1 by 199.2, giving 42698.57059
CARBON BLACK (@0.1%) Increasing Total for FAD6 by 0.004, giving 0.3208
CARBON BLACK (@0.1%) Increasing Total for FAD3 by 0.01, giving 4.5171718
TOLUENE (@0.09%) Increasing Total for FAD3 by 0.008626, giving 4.5257978
SILICA (@0.06%) Increasing Total for FAD1 by 60, giving 42758.57059
ZIRCONIUM OXIDE (@0.03%) Increasing Total for FAD1 by 0.3, giving 42758.87059
BENZENE (@0.00%) Increasing Total for FAD6 by 0.02022, giving 0.34102
TIN (@0.00%) Increasing Total for FAD1 by 0.186, giving 42759.05659
ARSENIC (@0.00%) Increasing Total for FAD6 by 0.00039, giving 0.34141
NICKEL (@0.00%) Increasing Total for FAD6 by 0.000006, giving 0.341416
NICKEL (@0.00003%) Increasing Total for FAD5 by 0.0003, giving 235.2003

ANTIMONY (@0.00%) Increasing Total for FAD1 by 0.018, giving 42759.07459

BARIUM (@0.00%) Increasing Total for FAD1 by 0.012, giving 42759.08659

CHROMIUM (@0.00%) Increasing Total for FAD3 by 0.0000006, giving 4.5257984

Figure-after-the-dash =5. Total of components with FAD=5 is >=1.

Low Boiling Liquid = Empty. Insufficient information available.

Recommended Usage Temperature is < 40C, hence no MAL Code in use is assigned.

Audit - RFU MAL Code

EU Denmark RFU MAL Code:-

Nothing was found

New Fields for IA3.3

MAL-code : 3-5

MAL Number : 1515.68

MAL Number (RFU) : Not applicable.

Protection based on MAL : **According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:**

General: Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

MAL-code: 3-5

Application: When using scraper or knife, brush, roller etc. for pre- and post-treatments in a spray booth where the operator is outside the spray zone and when working in similar new* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. When spraying in new* booths and cabins with non-atomizing guns.

- Protective clothing must be worn.

During downtimes, cleaning and repair in closed facilities, spray booths or cabins, if there is a risk of contact with wet paint or organic solvents. When using scraper or knife, brush, roller, etc. for pre- and post-treatments in cabins or booths of the existing* facility type, if the operator is inside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Air-supplied half mask, protective clothing and eye protection must be worn.

When spraying in new* booths if the operator is outside the spray zone.

- Air-supplied half mask and eye protection must be worn.

When spraying in existing* spray booths, if the operator is outside the spray zone. During non-atomising spraying in existing* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone.

- Air-supplied full mask and protective clothing must be worn.

During all spraying where atomisation occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Air-supplied full mask, protective clothing and hood must be worn.

Drying: Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc, must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

Polishing: When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

Caution The regulations contain other stipulations in addition to the above.

*See Regulations.

Protection based on R-F-U MAL : Not available.

Not available.

Not available.