Audit - EU DK MAL Code

PHENGUARD 930/935/940 HARDENER

Denmark MAL Code

Audit - MAL Code

EU Denmark MAL Code:- 5-5

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

Product is a Liquid

PHENGUARD 930/935/940 HARDENER - Components considered for the MAL Code calculation.

EPOXY HARDENER (24.38%) {Denmark MAL Code}

CAS: SUB114178

Density: 0

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

No MAL Factor calculated.

FAD: 1. (Default)

FAD 1 Quotient = 24380

XYLENES (23.4893%) {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 = 2.349

FAD 1 Quotient = 117.446

3-Aminopropyldiethylamine (16.87%) {Denmark MAL Code}

CAS: 104789

Density: 0.826

Relative Density: 0.8

Molecular Weight: 130.27

Boiling Point: 170

Vapour Pressure: 1.5

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

MAL Factor entered: 2000. Limit: 0

FAD entered: 5; Lower Limit: 1

FAD 5 Quotient = 16.87

BENZYL ALCOHOL (12.2385%) {Denmark MAL Code}

CAS: 100516

Density: 1.05

Relative Density: 1.04

Molecular Weight: 108.14
Boiling Point: 205.3
Vapour Pressure: 0.0525
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 = 12238.5

ISOBUTYL ALCOHOL (9.2%) {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 = 9200

1,3-Benzenedimethanamine (4.48%) {Denmark MAL Code}
Organic Solvent.
CAS: 1477550
Density: 1.05
Relative Density: 1.05
Molecular Weight: 136.22
Boiling Point: 271.85
Vapour Pressure: 0.01
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 5; Lower Limit: 1
FAD 5 Quotient = 4.48

ETHYLBENZENE (4.1655%) {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 = 0.417

AMINOMETHOXYSILANE (3.96%) {Denmark MAL Code}
CAS: 1760243
Density: 1.03
Molecular Weight: 222.41

Boiling Point: 240
Vapour Pressure: 0.3000246
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor entered: 0. Limit: 0
FAD entered: 3; Lower Limit: 2
FAD 4 Quotient = 0.396
FAD 3 Quotient = 1.98
Salicylic acid (0.998%) {Denmark MAL Code}
CAS: 69727
Density: 1.443
Relative Density: 1.4
Molecular Weight: 138.13
Vapour Pressure: 0.000081757
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 = 0.998
TOLUENE (0.1111%) {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 = 0.011
proprietary impurities (0.028%) {Denmark MAL Code}
CAS: SUB121412
Density: 0
Molecular Weight: 32.05
No LBL Factor entered or estimated from CAS Number or Boiling Point.
No MAL Factor calculated.
FAD: 1. (Default)
FAD 1 Quotient = 28
BENZALDEHYDE (0.0246%) {Denmark MAL Code}
CAS: 100527
Density: 1.044
Relative Density: 1.05
Molecular Weight: 106.13
Boiling Point: 179
No LBL Factor entered or estimated from CAS Number or Boiling Point.
No MAL Factor calculated.
FAD: 1. (Default)
FAD 1 Quotient = 24.6
BENZYL ETHER (0.0246%) {Denmark MAL Code}

CAS: 103504
Density: 1.036
Relative Density: 1.043
Molecular Weight: 198.26
Boiling Point: 297
Vapour Pressure: 0
No LBL Factor entered or estimated from CAS Number or Boiling Point.
R Phrases: N;R51/53
MAL Factor from Sub-Annex 2: 0
FAD: 1. (Default)
FAD 1 Quotient = 24.6
WATER (0.0142%) {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
METHYL ALCOHOL (0.012%) {Denmark MAL Code}
Organic Solvent.
CAS: 67561
Density: 0.792
Relative Density: 0.79
Molecular Weight: 32.05
Boiling Point: 64.7
Vapour Pressure: 126.96
LBLFactor = 100 (BP=64.7)
MAL Factor entered: 54. Limit: 0
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.
FAD 6 Quotient = 0.001
FAD 3 Quotient = 0.012
BENZENE (0.0042%) {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 = 0.042
Density = 0.93. Entered value.
Figure-before-the dash = 5

XYLENES(@23.49%). MAL Factor = 46. Total increased by 23.49*46=1080.51. Running Total = 1080.51
3-Aminopropyldiethylamine(@16.87%). MAL Factor = 2000. Total increased by 16.87*2000=33740. Running Total = 34820.51
BENZYL ALCOHOL(@12.24%). MAL Factor = 0. Total increased by 12.24*0=0. Running Total = 34820.51
ISOBUTYL ALCOHOL(@9.2%). MAL Factor = 67. Total increased by 9.2*67=616.4. Running Total = 35436.91
1,3-Benzenedimethanamine(@4.48%). MAL Factor = 0. Total increased by 4.48*0=0. Running Total = 35436.91
ETHYLBENZENE(@4.17%). MAL Factor = 46. Total increased by 4.17*46=191.61. Running Total = 35628.52
AMINOMETHOXYSILANE(@3.96%). MAL Factor = 0. Total increased by 3.96*0=0. Running Total = 35628.52
Salicylic acid(@1.00%). MAL Factor = 0. Total increased by 1.00*0=0. Running Total = 35628.52
TOLUENE(@0.11%). MAL Factor = 74. Total increased by 0.11*74=8.22. Running Total = 35636.74
BENZYL ETHER(@0.02%). MAL Factor = 0. Total increased by 0.02*0=0.00. Running Total = 35636.74
WATER(@0.01%). MAL Factor = 0. Total increased by 0.01*0=0. Running Total = 35636.74
METHYL ALCOHOL(@0.01%). MAL Factor = 54. Total increased by 0.01*54=0.65. Running Total = 35637.39
BENZENE(@0.00%). MAL Factor = 880. Total increased by 0.00*880=3.70. Running Total = 35641.09
Figure-before-the-dash calculated as 5. Via MAL Factor Total * Density (35641.09 * 0.93) giving a MAL Number of 33146
MAL Number = Density (0.93) * Sum (35641.09) = 33146
Figure-after-the-dash = 5. Calculated from component data.
EPOXY HARDENER (@24.38%) Increasing Total for FAD1 by 24380, giving 24380
XYLENES (@23.49%) Increasing Total for FAD3 by 2.34893, giving 2.34893
XYLENES (@23.49%) Increasing Total for FAD1 by 117.4465, giving 24497.4465
3-Aminopropyldiethylamine (@16.87%) Increasing Total for FAD5 by 16.87, giving 16.87
BENZYL ALCOHOL (@12.24%) Increasing Total for FAD1 by 12238.5, giving 36735.9465
ISOBUTYL ALCOHOL (@9.2%) Increasing Total for FAD1 by 9200, giving 45935.9465
1,3-Benzenedimethanamine (@4.48%) Increasing Total for FAD5 by 4.48, giving 21.35
ETHYLBENZENE (@4.17%) Increasing Total for FAD3 by 0.41655, giving 2.76548
AMINOMETHOXYSILANE (@3.96%) Increasing Total for FAD4 by 0.396, giving 0.396
AMINOMETHOXYSILANE (@3.96%) Increasing Total for FAD3 by 1.98, giving 4.74548
Salicylic acid (@1.00%) Increasing Total for FAD3 by 0.998, giving 5.74348
TOLUENE (@0.11%) Increasing Total for FAD3 by 0.01111, giving 5.75459
proprietary impurities (@0.03%) Increasing Total for FAD1 by 28, giving 45963.9465
BENZALDEHYDE (@0.02%) Increasing Total for FAD1 by 24.6, giving 45988.5465
BENZYL ETHER (@0.02%) Increasing Total for FAD1 by 24.6, giving 46013.1465
METHYL ALCOHOL (@0.01%) Increasing Total for FAD6 by 0.0006, giving 0.0006
METHYL ALCOHOL (@0.01%) Increasing Total for FAD3 by 0.012, giving 5.76659
BENZENE (@0.00%) Increasing Total for FAD6 by 0.042, giving 0.0426
Figure-after-the-dash =5. Total of components with FAD=5 is >=1.
Low Boiling Liquid = False.
METHYL ALCOHOL (@0.01%) Total increased by 0.01*54/100=0.01. Running Total = 0.01
Density * (Sum of components Concentration * MALFactor/LBLFactor) = 0.01
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	:	5-5
MAL Number	:	33146.2
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: 5-5
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 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. When spraying in existing* spray booths, if the operator is outside the spray zone. 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. 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.

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

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

- Air-supplied full mask 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.