

Audit - EU DK MAL Code

SIGMACOVER 350 HARDENER

Denmark MAL Code

Audit - MAL Code

EU Denmark MAL Code:- 4-5

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

Product is a Liquid

SIGMACOVER 350 HARDENER - Components considered for the MAL Code calculation. {Denmark MAL Code}

POLYAMIDE (27.416%)

CAS: 68082-29-1

Density: 0.99

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: 0.1

FAD 1 Quotient = 274.16

POLYAMINOAMIDE ADDUCT (21.2%)

CAS: 68953-09-3

Density: 0

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

No MAL Factor calculated.

FAD:5. (Skin Sens)

FAD 5 Quotient = 21200

XYLENES (14.2103%)

Organic Solvent.

CAS: 1330-20-7

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 = 1.421

FAD 1 Quotient = 71.052

ISOBUTYL ALCOHOL (13.7%)

Organic Solvent.

CAS: 78-83-1

Density: 0.802

Relative Density: 0.8

Molecular Weight: 74.14

Boiling Point: 108

Vapour Pressure: 10.800918

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 = 13700

BENZYL ALCOHOL (13.4325%)

CAS: 100-51-6

Density: 1.05

Relative Density: 1.04

Molecular Weight: 108.14

Boiling Point: 205.3

Vapour Pressure: 0.05

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 = 13432.5

2,4,6-tris(dimethylaminomethyl)phenol (5%)

CAS: 90-72-2

Density: 0.971

Molecular Weight: 265.45

Vapour Pressure: 0.056

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 3 Quotient = 2.5

ETHYLBENZENE (2.52%)

Organic Solvent.

Carcinogen.

CAS: 100-41-4

Density: 0.866

Relative Density: 0.9

Molecular Weight: 106.18

Boiling Point: 136.1

Vapour Pressure: 9.30076

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 = 0.252

TRIETHYLENETETRAMINE (2.384%)

CAS: 112-24-3

Density: 0.982

Relative Density: 0.98

Molecular Weight: 146.24

Boiling Point: 266.5

Vapour Pressure: 0.00882

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 = 2.384

TOLUENE (0.0672%)

Organic Solvent.

CAS: 108-88-3

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 = 0.007

BENZALDEHYDE (0.027%)

CAS: 100-52-7

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 = 27

BENZYL ETHER (0.027%)

CAS: 103-50-4

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 = 27

WATER (0.0135%)

CAS: 7732-18-5

Density: 1

Molecular Weight: 18.02

Boiling Point: 100

Vapour Pressure: 17.5

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

MAL Factor entered: 0. Limit: 0

FAD entered: 0; Lower Limit: 0

BENZENE (0.0025%)

Organic Solvent.

Carcinogen.

CAS: 71-43-2

Density: 0.877
Relative Density: 0.88
Molecular Weight: 78.12
Boiling Point: 80.09
Vapour Pressure: 75.00609
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 = 0.025

Density = 0.95. Entered value.

Figure-before-the dash = 4

POLYAMIDE(@27.42%). MAL Factor = 0. Total increased by $27.42 \times 0 = 0$. Running Total = 0
XYLENES(@14.21%). MAL Factor = 46. Total increased by $14.21 \times 46 = 653.67$. Running Total = 653.67
ISOBUTYL ALCOHOL(@13.7%). MAL Factor = 67. Total increased by $13.7 \times 67 = 917.9$. Running Total = 1571.57
BENZYL ALCOHOL(@13.43%). MAL Factor = 0. Total increased by $13.43 \times 0 = 0$. Running Total = 1571.57
2,4,6-tris(dimethylaminomethyl)phenol(@5%). MAL Factor = 0. Total increased by $5 \times 0 = 0$. Running Total = 1571.57
ETHYLBENZENE(@2.52%). MAL Factor = 46. Total increased by $2.52 \times 46 = 115.92$. Running Total = 1687.49
TRIETHYLENETETRAMINE(@2.38%). MAL Factor = 0. Total increased by $2.38 \times 0 = 0$. Running Total = 1687.49
TOLUENE(@0.07%). MAL Factor = 74. Total increased by $0.07 \times 74 = 4.97$. Running Total = 1692.47
BENZYL ETHER(@0.03%). MAL Factor = 0. Total increased by $0.03 \times 0 = 0.00$. Running Total = 1692.47
WATER(@0.01%). MAL Factor = 0. Total increased by $0.01 \times 0 = 0$. Running Total = 1692.47
BENZENE(@0.00%). MAL Factor = 880. Total increased by $0.00 \times 880 = 2.2$. Running Total = 1694.67

Figure-before-the-dash calculated as 4. Via MAL Factor Total * Density (1694.67×0.95) giving a MAL Number of 1610
MAL Number = Density (0.95) * Sum (1694.67) = 1610

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

POLYAMIDE (@27.42%) Increasing Total for FAD1 by 274.16, giving 274.16
POLYAMINOAMIDE ADDUCT (@21.2%) Increasing Total for FAD5 by 21200, giving 21200
XYLENES (@14.21%) Increasing Total for FAD3 by 1.42103, giving 1.42103
XYLENES (@14.21%) Increasing Total for FAD1 by 71.0515, giving 345.2115
ISOBUTYL ALCOHOL (@13.7%) Increasing Total for FAD1 by 13700, giving 14045.2115
BENZYL ALCOHOL (@13.43%) Increasing Total for FAD1 by 13432.5, giving 27477.7115
2,4,6-tris(dimethylaminomethyl)phenol (@5%) Increasing Total for FAD3 by 2.5, giving 3.92103
ETHYLBENZENE (@2.52%) Increasing Total for FAD3 by 0.252, giving 4.17303
TRIETHYLENETETRAMINE (@2.384%) Increasing Total for FAD5 by 2.384, giving 21202.384
TOLUENE (@0.07%) Increasing Total for FAD3 by 0.00672, giving 4.17975
BENZALDEHYDE (@0.03%) Increasing Total for FAD1 by 27, giving 27504.7115
BENZYL ETHER (@0.03%) Increasing Total for FAD1 by 27, giving 27531.7115
BENZENE (@0.00%) Increasing Total for FAD6 by 0.025, giving 0.025

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

Low Boiling Liquid = Empty. Insufficient information available.

Recommended Usage Temperature is $< 40\text{C}$, 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 : 4-5
MAL Number : 1609.93

MAL Number (RFU)
Protection based on MAL

- : Not applicable.
- : **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: 4-5

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.

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-atomizing spraying in existing* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. During downtimes, cleaning and repair of 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.

During all spraying where atomization 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.