

# Audit - EU DK MAL Code

## AMERCOAT 240LT CURE

### 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

AMERCOAT 240LT CURE - Components considered for the MAL Code calculation. {Denmark MAL Code}

proprietary alkyl phenol polyamine (49.5%)

CAS: SUB120602

Density: 0

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

No MAL Factor calculated.

FAD: 1. (Default)

FAD 1 Quotient = 49500

XYLENES (19.449%)

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 = 1.945

FAD 1 Quotient = 97.245

EPOXY RESIN (9%)

CAS: 25068-38-6

Density: 1.16

Molecular Weight: 320.84

Vapour Pressure: 0

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

R Phrases: R43 Xi;R38 Xi;R36 N;R51/53

MAL Factor from Sub-Annex 2: 0

FAD:5. (Skin Sens)

FAD 5 Quotient = 9000

1-BUTANOL (8.1%)

Organic Solvent.

CAS: 71-36-3

Density: 0.81

Relative Density: 0.81

Molecular Weight: 74.14  
Boiling Point: 119  
Vapour Pressure: 6.75  
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 = 8100

Formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol (7.501%)

CAS: 445498-00-0  
Density: 0  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
No MAL Factor calculated.  
FAD: 3. (Xn)  
FAD 3 Quotient = 7501

ETHYLBENZENE (3.51%)

Organic Solvent.  
Carcinogen.  
CAS: 100-41-4  
Density: 0.866  
Relative Density: 0.9  
Molecular Weight: 106.18  
Boiling Point: 136.1  
Vapour Pressure: 9.3  
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 = 0.351

2;4;6 TRIS (DIMETHYLAMINOMETHYL) PHENOL (2%)

CAS: 90-72-2  
Density: 0.971  
Molecular Weight: 265.45  
Boiling Point: 341  
Vapour Pressure: 0.06  
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 = 1

3-AMINOPROPYLDIMETHYLAMINE (0.499%)

CAS: 109-55-7  
Density: 0.813  
Relative Density: 0.81  
Molecular Weight: 102.21  
Boiling Point: 135.1  
Vapour Pressure: 4.43  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor entered: 2. Limit: 0  
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.  
FAD 5 Quotient = 0.499

ETHYLENEDIAMINE (0.441%)

Organic Solvent.

CAS: 107-15-3

Density: 0.897

Relative Density: 0.9

Molecular Weight: 60.1

Boiling Point: 117.1

Vapour Pressure: 10.5

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

MAL Factor entered: 560. Limit: 0

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

FAD 5 Quotient = 0.441

Density = 0.99. Entered value.

Figure-before-the dash = 4

XYLENES(@19.45%). MAL Factor = 46. Total increased by  $19.45 \times 46 = 894.65$ . Running Total = 894.65

EPOXY RESIN(@9%). MAL Factor = 0. Total increased by  $9 \times 0 = 0$ . Running Total = 894.65

1-BUTANOL(@8.1%). MAL Factor = 67. Total increased by  $8.1 \times 67 = 542.7$ . Running Total = 1437.35

ETHYLBENZENE(@3.51%). MAL Factor = 46. Total increased by  $3.51 \times 46 = 161.46$ . Running Total = 1598.81

2;4;6 TRIS (DIMETHYLAMINOMETHYL) PHENOL(@2%). MAL Factor = 0. Total increased by  $2 \times 0 = 0$ . Running Total = 1598.81

3-AMINOPROPYLDIMETHYLAMINE(@0.50%). MAL Factor = 2. Total increased by  $0.50 \times 2 = 1.00$ . Running Total = 1599.81

ETHYLENEDIAMINE(@0.44%). MAL Factor = 560. Total increased by  $0.44 \times 560 = 246.96$ . Running Total = 1846.77

Figure-before-the-dash calculated as 4. Via MAL Factor Total \* Density ( $1846.77 \times 0.99$ ) giving a MAL Number of 1828

MAL Number = Density (0.99) \* Sum (1846.77) = 1828

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

proprietary alkyl phenol polyamine (@49.5%) Increasing Total for FAD1 by 49500, giving 49500

XYLENES (@19.45%) Increasing Total for FAD3 by 1.9449, giving 1.9449

XYLENES (@19.45%) Increasing Total for FAD1 by 97.245, giving 49597.245

EPOXY RESIN (@9%) Increasing Total for FAD5 by 9000, giving 9000

1-BUTANOL (@8.1%) Increasing Total for FAD1 by 8100, giving 57697.245

Formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol (@7.50%) Increasing Total for FAD3 by 7501, giving 7502.9449

ETHYLBENZENE (@3.51%) Increasing Total for FAD3 by 0.351, giving 7503.2959

2;4;6 TRIS (DIMETHYLAMINOMETHYL) PHENOL (@2%) Increasing Total for FAD3 by 1, giving 7504.2959

3-AMINOPROPYLDIMETHYLAMINE (@0.499%) Increasing Total for FAD5 by 0.499, giving 9000.499

ETHYLENEDIAMINE (@0.441%) Increasing Total for FAD5 by 0.441, giving 9000.940

Figure-after-the-dash =5. Total of components with FAD=5 is  $\geq 1$ .

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** : 4-5

**MAL Number** : 1828.3

**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: 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.