

Audit - EU DK MAL Code

SIGMAZINC 102 HS / 109 HS 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

SIGMAZINC 102 HS / 109 HS HARDENER - Components considered for the MAL Code calculation. {Denmark MAL Code}

POLYAMIDE (27.2102%)

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 = 272.102

POLYAMINOAMIDE ADDUCT (20.8%)

CAS: SUB133971

Density: 0

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

No MAL Factor calculated.

FAD: 1. (Default)

FAD 1 Quotient = 20800

XYLENES (14.28%)

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 = 1.428

FAD 1 Quotient = 71.4

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: 10.8

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 = 13700

BENZYL ALCOHOL (13.4858%)

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 = 13485.8

2;4;6 TRIS (DIMETHYLAMINOMETHYL) PHENOL (4.25%)

CAS: 90-72-2

Density: 0.971

Molecular Weight: 265.45

Boiling Point: 341

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 = 2.125

TRIETHYLENETETRAMINE (2.9898%)

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 = 2.990

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: 9.3

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 = 0.252

BIS(DIMETHYLAMINOMETHYL)PHENOL (0.75%)

CAS: 71074-89-0

Density: 0.951

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 4 Quotient = 0.75

METHYL ALCOHOL (0.0057%)

Organic Solvent.

CAS: 67-56-1

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 = 0.000

FAD 3 Quotient = 0.006

BENZALDEHYDE (0.0027%)

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 = 2.7

BENZYL ETHER (0.0027%)

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 = 2.7

WATER (0.0017%)

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

1,1'-METHYLENEBISBENZENE (0.0014%)

CAS: 101-81-5

Density: 0

Molecular Weight: 168.24

Boiling Point: 264.5

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

No MAL Factor calculated.

FAD: 1. (Default)

FAD 1 Quotient = 1.4

Density = 0.95. Entered value.

Figure-before-the dash = 4

POLYAMIDE(@27.21%). MAL Factor = 0. Total increased by $27.21 \times 0 = 0$. Running Total = 0

XYLENES(@14.28%). MAL Factor = 46. Total increased by $14.28 \times 46 = 656.88$. Running Total = 656.88

ISOBUTYL ALCOHOL(@13.7%). MAL Factor = 67. Total increased by $13.7 \times 67 = 917.9$. Running Total = 1574.78

BENZYL ALCOHOL(@13.49%). MAL Factor = 0. Total increased by $13.49 \times 0 = 0$. Running Total = 1574.78

2,4;6 TRIS (DIMETHYLAMINOMETHYL) PHENOL(@4.25%). MAL Factor = 0. Total increased by $4.25 \times 0 = 0$. Running Total = 1574.78

TRIETHYLENETETRAMINE(@2.99%). MAL Factor = 0. Total increased by $2.99 \times 0 = 0$. Running Total = 1574.78

ETHYLBENZENE(@2.52%). MAL Factor = 46. Total increased by $2.52 \times 46 = 115.92$. Running Total = 1690.70

BIS(DIMETHYLAMINOMETHYL)PHENOL(@0.75%). MAL Factor = 0. Total increased by $0.75 \times 0 = 0$. Running Total = 1690.70

METHYL ALCOHOL(@0.01%). MAL Factor = 54. Total increased by $0.01 \times 54 = 0.31$. Running Total = 1691.01

BENZYL ETHER(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0.00$. Running Total = 1691.01

WATER(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0$. Running Total = 1691.01

Figure-before-the-dash calculated as 4. Via MAL Factor Total * Density (1691.01×0.95) giving a MAL Number of 1606

MAL Number = Density (0.95) * Sum (1691.01) = 1606

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

POLYAMIDE (@27.21%) Increasing Total for FAD1 by 272.102, giving 272.102

POLYAMINOAMIDE ADDUCT (@20.8%) Increasing Total for FAD1 by 20800, giving 21072.102

XYLENES (@14.28%) Increasing Total for FAD3 by 1.428, giving 1.428

XYLENES (@14.28%) Increasing Total for FAD1 by 71.4, giving 21143.502

ISOBUTYL ALCOHOL (@13.7%) Increasing Total for FAD1 by 13700, giving 34843.502

BENZYL ALCOHOL (@13.49%) Increasing Total for FAD1 by 13485.8, giving 48329.302

2,4;6 TRIS (DIMETHYLAMINOMETHYL) PHENOL (@4.25%) Increasing Total for FAD3 by 2.125, giving 3.553

TRIETHYLENETETRAMINE (@2.9898%) Increasing Total for FAD5 by 2.9898, giving 2.9898

ETHYLBENZENE (@2.52%) Increasing Total for FAD3 by 0.252, giving 3.805

BIS(DIMETHYLAMINOMETHYL)PHENOL (@0.75%) Increasing Total for FAD4 by 0.75, giving 0.75

METHYL ALCOHOL (@0.01%) Increasing Total for FAD6 by 0.000285, giving 0.000285

METHYL ALCOHOL (@0.01%) Increasing Total for FAD3 by 0.0057, giving 3.8107

BENZALDEHYDE (@0.00%) Increasing Total for FAD1 by 2.7, giving 48332.002

BENZYL ETHER (@0.00%) Increasing Total for FAD1 by 2.7, giving 48334.702

1,1'-METHYLENEBISBENZENE (@0.00%) Increasing Total for FAD1 by 1.4, giving 48336.102

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

Low Boiling Liquid = False.

METHYL ALCOHOL (@0.01%) Total increased by $0.01 \times 54 / 100 = 0.00$. Running Total = 0.00

Density * (Sum of components Concentration * MALFactor/LBLFactor) = 0
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 : 1606.46
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.