

Audit - EU DK MAL Code

SIGMADUR 520/550 HARDENER

Denmark MAL Code

Audit - MAL Code

EU Denmark MAL Code:- 5-3

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

Product is a Liquid

SIGMADUR 520/550 HARDENER - Components considered for the MAL Code calculation. {Denmark MAL Code}

Hexamethylene diisocyanate, oligomers (biuret type) (74.501%)

CAS: 28182-81-2

Density: 1.09

Vapour Pressure: 0.000018

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 3 Quotient = 74.501

1-METHOXY-2-PROPYL ACETATE (12.5%)

Organic Solvent.

CAS: 108-65-6

Density: 0.962

Relative Density: 0.96

Molecular Weight: 132.18

Boiling Point: 145.8

Vapour Pressure: 2.7

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

MAL Factor entered: 19. Limit: 0

FAD entered: 1; Lower Limit: 0

FAD 1 Quotient = 12500

XYLENES (6.24801%)

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: 1; Lower Limit: 0.2

FAD 3 Quotient = 0.625

FAD 1 Quotient = 31.240

ETHYLBENZENE (6.2%)

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 = 0.62

HEXAMETHYLENE-DI-ISOCYANATE (0.499%)

Organic Solvent.

CAS: 822-06-0

Density: 1.05

Relative Density: 1.05

Molecular Weight: 168.22

Boiling Point: 255

Vapour Pressure: 0.00525

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

MAL Factor entered: 20000. Limit: 0

FAD entered: 3; Lower Limit: 0.1

FAD 6 Quotient = 0.250

FAD 3 Quotient = 4.99

TOLUENE (0.05%)

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 = 0.005

BENZENE (0.0019%)

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 = 0.019
HEXACHLOROBENZENE (0.00009%)
Carcinogen.
CAS: 118-74-1
Density: 1.21
Relative Density: 2.044
Molecular Weight: 284.76
Boiling Point: 325
Vapour Pressure: 0.0000075
No LBL Factor entered or estimated from CAS Number or Boiling Point.
MAL Factor from OEL: 0
R Phrases: T;R48/25 Carc.Cat.2;R45 N;R50/53
FAD: 1. (Default)
FAD 1 Quotient = 0.09

Density = 1.07. Entered value.

Figure-before-the dash = 5

Hexamethylene diisocyanate, oligomers (biuret type)(@74.50%). MAL Factor = 0. Total increased by $74.50 \times 0 = 0$. Running Total = 0
1-METHOXY-2-PROPYL ACETATE(@12.5%). MAL Factor = 19. Total increased by $12.5 \times 19 = 237.5$. Running Total = 237.5
XYLENES(@6.25%). MAL Factor = 46. Total increased by $6.25 \times 46 = 287.41$. Running Total = 524.91
ETHYLBENZENE(@6.2%). MAL Factor = 46. Total increased by $6.2 \times 46 = 285.2$. Running Total = 810.11
HEXAMETHYLENE-DI-ISOCYANATE(@0.50%). MAL Factor = 20000. Total increased by $0.50 \times 20000 = 9980$. Running Total = 10790.11
TOLUENE(@0.05%). MAL Factor = 74. Total increased by $0.05 \times 74 = 3.7$. Running Total = 10793.81
BENZENE(@0.00%). MAL Factor = 880. Total increased by $0.00 \times 880 = 1.67$. Running Total = 10795.48
HEXACHLOROBENZENE(@0.00%). MAL Factor = 0. Total increased by $0.00 \times 0 = 0.00$. Running Total = 10795.48
Figure-before-the-dash calculated as 5. Via MAL Factor Total * Density (10795.48 * 1.07) giving a MAL Number of 11551

MAL Number = Density (1.07) * Sum (10795.48) = 11551

Figure-after-the-dash = 3. Calculated from component data.

Hexamethylene diisocyanate, oligomers (biuret type) (@74.50%) Increasing Total for FAD3 by 74.501, giving 74.501
1-METHOXY-2-PROPYL ACETATE (@12.5%) Increasing Total for FAD1 by 12500, giving 12500
XYLENES (@6.25%) Increasing Total for FAD3 by 0.624801, giving 75.125801
XYLENES (@6.25%) Increasing Total for FAD1 by 31.24005, giving 12531.24005
ETHYLBENZENE (@6.2%) Increasing Total for FAD3 by 0.62, giving 75.745801
HEXAMETHYLENE-DI-ISOCYANATE (@0.50%) Increasing Total for FAD6 by 0.2495, giving 0.2495
HEXAMETHYLENE-DI-ISOCYANATE (@0.50%) Increasing Total for FAD3 by 4.99, giving 80.735801
TOLUENE (@0.05%) Increasing Total for FAD3 by 0.005, giving 80.740801
BENZENE (@0.00%) Increasing Total for FAD6 by 0.019, giving 0.2685
HEXACHLOROBENZENE (@0.00%) Increasing Total for FAD1 by 0.09, giving 12531.33005

Figure-after-the-dash = 3. Total of components with FAD=3 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 : 5-3
MAL Number : 11551.2
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: 5-3

Application: When spraying in new* 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. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Air-supplied full mask 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. 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 coveralls must be worn.

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

- Air-supplied full mask, arm protectors and apron 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, coveralls 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.