

# Audit - EU DK MAL Code

## SIGMADUR 550 BASE YELLOW 3138

### Denmark MAL Code

#### Audit - MAL Code

EU Denmark MAL Code:- 4-3

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

Product is a Liquid

SIGMADUR 550 BASE YELLOW 3138 - Components considered for the MAL Code calculation. {Denmark MAL Code}

hydroxy acrylic resin (36.5982%)

CAS: SUB109728

Density: 1.1

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

No MAL Factor calculated.

FAD: 1. (Default)

FAD 1 Quotient = 36598.2

XYLENES (27.3422801402%)

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 = 2.734

FAD 1 Quotient = 136.711

MONOAZO PIGMENT OF THE BENZIMIDAZOLONE RANGE (9.121%)

CAS: 68134-22-5

Density: 1.586

Molecular Weight: 405.34

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 = 91.21

N-BUTYL ACETATE (7.4534615%)

Organic Solvent.

CAS: 123-86-4

Density: 0.881

Relative Density: 0.88

Molecular Weight: 116.18

Boiling Point: 126

Vapour Pressure: 11.25096

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

MAL Factor entered: 14. Limit: 0

FAD entered: 1; Lower Limit: 0

FAD 1 Quotient = 7453.462

TITANIUM DIOXIDE (6.0597095%)

CAS: 13463-67-7

Density: 4.1

Relative Density: 4.26

Molecular Weight: 79.9

Boiling Point: 2750

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 = 6059.710

ETHYLBENZENE (4.87980152%)

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 = 0.488

BARIUM SULPHATE (3.848%)

CAS: 13462-86-7

Density: 4.4

Molecular Weight: 235.41

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

MAL Factor entered: 0. Limit: 0

FAD entered: 2; Lower Limit: 2

FAD 2 Quotient = 1.924

N,N-1,6-HEXANEDIYLBIS (12-HYDROXY-OCTADECANEIMIDE) (1.853%)

CAS: 55349-01-4

Density: 1.06

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 = 18.53

2,6-DIMETHYLHEPTANONE (0.57%)

Organic Solvent.

CAS: 108-83-8

Density: 0.81

Relative Density: 0.805

Molecular Weight: 142.27  
Boiling Point: 168.26  
Vapour Pressure: 1.72514  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor entered: 47. Limit: 0  
FAD entered: 1; Lower Limit: 0  
FAD 1 Quotient = 570

2-BUTOXY ETHANOL (0.57%)

Organic Solvent.  
CAS: 111-76-2  
Density: 0.9  
Relative Density: 0.9  
Molecular Weight: 118.18  
Boiling Point: 171.25  
Vapour Pressure: 0.75006  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor entered: 25. Limit: 0  
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.  
FAD 3 Quotient = 0.057

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (0.428%)

CAS: 1065336-91-5  
Density: 0.992  
Molecular Weight: 878.31  
Boiling Point: 330  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
No MAL Factor calculated.  
FAD: 1. (Default)  
FAD 1 Quotient = 428

BLOCKED COPOLYMER (0.2565%)

CAS: SUB100054  
Density: 1  
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 = 2.565

cyclohexanone (0.24225%)

Organic Solvent.  
CAS: 108-94-1  
Density: 0.946  
Relative Density: 0.95  
Molecular Weight: 98.14  
Boiling Point: 154.3  
Vapour Pressure: 3.75  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor entered: 70. Limit: 0  
FAD entered: 1; Lower Limit: 0  
FAD 1 Quotient = 242.25

ALUMINUM HYDROXIDE (0.224315%)

CAS: 21645-51-2

Density: 2.42

Molecular Weight: 78

Vapour Pressure: 0.0675

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 = 2.243

TOLUENE (0.0977041192%)

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 = 0.010

2-HYDROXYETHYL METHACRYLATE (0.0975952%)

CAS: 868-77-9

Density: 1.07

Molecular Weight: 130.16

Boiling Point: 213

Vapour Pressure: 0.06001

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 = 0.098

FAD 5 Quotient = 0.020

1-METHOXY-2-PROPYL ACETATE (0.07125%)

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 = 71.25

SILICA (0.06409%)

CAS: 7631-86-9

Density: 2

Relative Density: 2.2

Molecular Weight: 60.08

Boiling Point: 2230

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

MAL Factor entered: 0. Limit: 0

R Phrases: None

FAD: 1. (Default)

FAD 1 Quotient = 64.09

Siloxanes and Silicones, di-Me, [(triethoxysilyl)oxy]-terminated (0.04275%)

CAS: 67923-21-1

Density: 0

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

No MAL Factor calculated.

FAD: 1. (Default)

FAD 1 Quotient = 42.75

ALKOXYLATED BUTYL ETHER (0.0424821683%)

CAS: 9038-95-3

Density: 1

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 = 0.021

ZIRCONIUM OXIDE (0.032045%)

CAS: 1314-23-4

Density: 5.85

Molecular Weight: 123.22

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 1 Quotient = 0.320

TRIMETHYLOLPROPANE (0.0288405%)

CAS: 77-99-6

Density: 1.084

Molecular Weight: 134.2

Boiling Point: 304.2

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: No limit specified. A very low value will be used.

FAD 1 Quotient = 0.288

1-BUTANOL (0.022233%)

Organic Solvent.

CAS: 71-36-3

Density: 0.81

Relative Density: 0.81

Molecular Weight: 74.14

Boiling Point: 119

Vapour Pressure: 6.750576

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 = 22.233  
proprietary siloxane (0.0197626%)  
CAS: SUB127499  
Density: 0  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
No MAL Factor calculated.  
FAD: 1. (Default)  
FAD 1 Quotient = 19.763  
ISOBUTYL ALCOHOL (0.014157%)  
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 = 14.157  
proprietary polyglycol (0.0119977%)  
CAS: SUB127500  
Density: 0  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
No MAL Factor calculated.  
FAD: 1. (Default)  
FAD 1 Quotient = 11.998  
BENZENE (0.0036717276%)  
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 = 0.037  
WATER (0.0029644%)  
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  
DIBUTYL TIN DILAURATE (0.0013871%)  
CAS: 77-58-7  
Density: 1.066  
Relative Density: 1.1  
Molecular Weight: 631.65  
Boiling Point: 385  
Vapour Pressure: 0.000000058  
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 6 Quotient = 0.001  
FAD 3 Quotient = 0.006

ACETIC ACID (0.0007411%)  
Organic Solvent.  
CAS: 64-19-7  
Density: 1.04  
Relative Density: 1.05  
Molecular Weight: 60.06  
Boiling Point: 117.9  
Vapour Pressure: 15.59383  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor entered: 400. Limit: 0  
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.  
FAD 4 Quotient = 0.000  
FAD 3 Quotient = 0.000

2-METHOXY-1-PROPYL ACETATE (0.0005643%)  
Organic Solvent.  
CAS: 70657-70-4  
Density: 0.97  
Molecular Weight: 132.18  
Boiling Point: 150.5  
Vapour Pressure: 2.9  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor entered: 181. Limit: 0  
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.  
FAD 6 Quotient = 0.003

organotin compound (0.0005643%)  
CAS: SUB143296  
Density: 0  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor from OEL: 0  
R Phrases: None  
FAD: 1. (Default)  
FAD 1 Quotient = 0.564

OCTAMETHYLCYCLOTETRASILOXANE (0.0002574%)  
CAS: 556-67-2

Density: 0.95  
Relative Density: 0.96  
Molecular Weight: 296.68  
Boiling Point: 175  
Vapour Pressure: 0.99008  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor entered: 1. Limit: 0  
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.  
FAD 3 Quotient = 0.000

Decamethylcyclopentasiloxane (0.0002574%)

CAS: 541-02-6  
Density: 0.96  
Molecular Weight: 370.85  
Boiling Point: 210  
Vapour Pressure: 0.25  
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 1 Quotient = 0.003

CUMENE (0.000121007%)

Organic Solvent.  
CAS: 98-82-8  
Density: 0.86  
Relative Density: 0.9  
Molecular Weight: 120.21  
Boiling Point: 152  
Vapour Pressure: 3.72032  
No LBL Factor entered or estimated from CAS Number or Boiling Point.  
MAL Factor entered: 1. Limit: 0  
FAD entered: 1; Lower Limit: No limit specified. A very low value will be used.  
FAD 3 Quotient = 0.000

COCONUT FATTY ACIDS (0.0000429%)

CAS: 61788-47-4  
Density: 1  
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 = 0.000

PROPYLENE OXIDE (0.0000021307%)

Organic Solvent.  
Carcinogen.  
CAS: 75-56-9  
Density: 0.83  
Relative Density: 0.8  
Molecular Weight: 58.09  
Boiling Point: 34.23  
Vapour Pressure: 538  
LBLFactor = 100 (BP=34.23)



MAL Factor entered: 1. Limit: 0

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

FAD 6 Quotient = 0.000

ACETALDEHYDE (0.0000002717%)

Organic Solvent.

Carcinogen.

CAS: 75-07-0

Density: 0

Relative Density: 0.78

Molecular Weight: 44.06

Boiling Point: 20.1

Vapour Pressure: 900.07313

LBLFactor = 100 (BP=20.1)

MAL Factor entered: 1. Limit: 0

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

FAD 3 Quotient = 0.000

HYDROCHLORIC ACID (0.0000002717%)

CAS: 7647-01-0

Density: 0.86

Molecular Weight: 36.46

Boiling Point: 109.85

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

MAL Factor entered: 2900. Limit: 0

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

FAD 4 Quotient = 0.000

FAD 3 Quotient = 0.000

FORMALDEHYDE (0.0000002002%)

Carcinogen.

CAS: 50-00-0

Density: 1.09

Relative Density: 0.812

Molecular Weight: 30.03

Boiling Point: 98

Vapour Pressure: 1

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

MAL Factor entered: 2500. 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 = 0.000

ETHYLENE OXIDE (0.0000002002%)

Carcinogen.

CAS: 75-21-8

Density: 0.882

Relative Density: 0.9

Molecular Weight: 44.06

Boiling Point: 10.7

Vapour Pressure: 1314.1117

LBLFactor = 100 (BP=10.7)

MAL Factor entered: 11. Limit: 0

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

FAD 6 Quotient = 0.000

1,4-DIOXANE (0.0000001144%)

Organic Solvent.

Carcinogen.

CAS: 123-91-1

Density: 1.03

Relative Density: 1.03

Molecular Weight: 88.12

Boiling Point: 101.15

Vapour Pressure: 30.7525

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

MAL Factor entered: 390. 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 = 0.000

METHYL ALCOHOL (0.0000001144%)

Organic Solvent.

CAS: 67-56-1

Density: 0.792

Relative Density: 0.79

Molecular Weight: 32.05

Boiling Point: 64.7

Vapour Pressure: 126.96329

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 = 0.000

METHYL CHLORIDE (0.0000001144%)

Carcinogen.

CAS: 74-87-3

Density: 0.911

Relative Density: 0.92

Molecular Weight: 50.49

Boiling Point: -23.7

Vapour Pressure: 3671.9

LBLFactor = 100 (BP=-23.7)

MAL Factor from OEL: 476.19 \*\* Warning: An Evaporation Rate Correction Factor of 2 was used. Contact the Authorities for a MAL Factor.

R Phrases: F+;R12 Xn;R48/20 Carc.Cat.3;R40

FAD: 1. (Default)

FAD 1 Quotient = 0.000

Density = 1.08. Entered value.

Figure-before-the dash = 4

XYLENES(@27.34%). MAL Factor = 46. Total increased by  $27.34 \times 46 = 1257.74$ . Running Total = 1257.74

MONOAZO PIGMENT OF THE BENZIMIDAZOLONE RANGE(@9.12%). MAL Factor = 0. Total increased by  $9.12 \times 0 = 0$ . Running Total = 1257.74

N-BUTYL ACETATE(@7.45%). MAL Factor = 14. Total increased by  $7.45 \times 14 = 104.35$ . Running Total = 1362.09

TITANIUM DIOXIDE(@6.06%). MAL Factor = 0. Total increased by  $6.06 \times 0 = 0$ . Running Total = 1362.09  
 ETHYLBENZENE(@4.88%). MAL Factor = 46. Total increased by  $4.88 \times 46 = 224.47$ . Running Total = 1586.56  
 BARIUM SULPHATE(@3.85%). MAL Factor = 0. Total increased by  $3.85 \times 0 = 0$ . Running Total = 1586.56  
 N,N-1,6-HEXANEDIYLBIS (12-HYDROXY-OCTADECANEIMIDE)(@1.85%). MAL Factor = 0. Total increased by  $1.85 \times 0 = 0$ . Running Total = 1586.56  
 2,6-DIMETHYLHEPTANONE(@0.57%). MAL Factor = 47. Total increased by  $0.57 \times 47 = 26.79$ . Running Total = 1613.35  
 2-BUTOXY ETHANOL(@0.57%). MAL Factor = 25. Total increased by  $0.57 \times 25 = 14.25$ . Running Total = 1627.60  
 BLOCKED COPOLYMER(@0.26%). MAL Factor = 0. Total increased by  $0.26 \times 0 = 0$ . Running Total = 1627.60  
 cyclohexanone(@0.24%). MAL Factor = 70. Total increased by  $0.24 \times 70 = 16.96$ . Running Total = 1644.56  
 ALUMINUM HYDROXIDE(@0.22%). MAL Factor = 0. Total increased by  $0.22 \times 0 = 0$ . Running Total = 1644.56  
 TOLUENE(@0.10%). MAL Factor = 74. Total increased by  $0.10 \times 74 = 7.23$ . Running Total = 1651.79  
 2-HYDROXYETHYL METHACRYLATE(@0.10%). MAL Factor = 0. Total increased by  $0.10 \times 0 = 0$ . Running Total = 1651.79  
 1-METHOXY-2-PROPYL ACETATE(@0.07%). MAL Factor = 19. Total increased by  $0.07 \times 19 = 1.35$ . Running Total = 1653.15  
 SILICA(@0.06%). MAL Factor = 0. Total increased by  $0.06 \times 0 = 0$ . Running Total = 1653.15  
 ALKOXYLATED BUTYL ETHER(@0.04%). MAL Factor = 0. Total increased by  $0.04 \times 0 = 0$ . Running Total = 1653.15  
 ZIRCONIUM OXIDE(@0.03%). MAL Factor = 0. Total increased by  $0.03 \times 0 = 0$ . Running Total = 1653.15  
 TRIMETHYLOLPROPANE(@0.03%). MAL Factor = 0. Total increased by  $0.03 \times 0 = 0$ . Running Total = 1653.15  
 1-BUTANOL(@0.02%). MAL Factor = 67. Total increased by  $0.02 \times 67 = 1.49$ . Running Total = 1654.64  
 ISOBUTYL ALCOHOL(@0.01%). MAL Factor = 67. Total increased by  $0.01 \times 67 = 0.95$ . Running Total = 1655.58  
 BENZENE(@0.00%). MAL Factor = 880. Total increased by  $0.00 \times 880 = 3.23$ . Running Total = 1658.81  
 WATER(@0.00%). MAL Factor = 0. Total increased by  $0.00 \times 0 = 0$ . Running Total = 1658.81  
 DIBUTYL TIN DILAURATE(@0.00%). MAL Factor = 0. Total increased by  $0.00 \times 0 = 0$ . Running Total = 1658.81  
 ACETIC ACID(@0.00%). MAL Factor = 400. Total increased by  $0.00 \times 400 = 0.30$ . Running Total = 1659.11  
 2-METHOXY-1-PROPYL ACETATE(@0.00%). MAL Factor = 181. Total increased by  $0.00 \times 181 = 0.10$ . Running Total = 1659.21  
 organotin compound(@0.00%). MAL Factor = 0. Total increased by  $0.00 \times 0 = 0.00$ . Running Total = 1659.21  
 OCTAMETHYLCYCLOTETRASILOXANE(@0.00%). MAL Factor = 1. Total increased by  $0.00 \times 1 = 0.00$ . Running Total = 1659.21  
 Decamethylcyclopentasiloxane(@0.00%). MAL Factor = 0. Total increased by  $0.00 \times 0 = 0$ . Running Total = 1659.21  
 CUMENE(@0.00%). MAL Factor = 1. Total increased by  $0.00 \times 1 = 0.00$ . Running Total = 1659.21  
 COCONUT FATTY ACIDS(@0.00%). MAL Factor = 0. Total increased by  $0.00 \times 0 = 0$ . Running Total = 1659.21  
 PROPYLENE OXIDE(@0.00%). MAL Factor = 1. Total increased by  $0.00 \times 1 = 0.00$ . Running Total = 1659.21  
 ACETALDEHYDE(@0.00%). MAL Factor = 1. Total increased by  $0.00 \times 1 = 0.00$ . Running Total = 1659.21  
 HYDROCHLORIC ACID(@0.00%). MAL Factor = 2900. Total increased by  $0.00 \times 2900 = 0.00$ . Running Total = 1659.21  
 FORMALDEHYDE(@0.00%). MAL Factor = 2500. Total increased by  $0.00 \times 2500 = 0.00$ . Running Total = 1659.22  
 ETHYLENE OXIDE(@0.00%). MAL Factor = 11. Total increased by  $0.00 \times 11 = 0.00$ . Running Total = 1659.22  
 1,4-DIOXANE(@0.00%). MAL Factor = 390. Total increased by  $0.00 \times 390 = 0.00$ . Running Total = 1659.22  
 METHYL ALCOHOL(@0.00%). MAL Factor = 54. Total increased by  $0.00 \times 54 = 0.00$ . Running Total = 1659.22  
 METHYL CHLORIDE(@0.00%). MAL Factor = 476.19. Total increased by  $0.00 \times 476.19 = 0.00$ . Running Total = 1659.22  
 Figure-before-the-dash calculated as 4. Via MAL Factor Total \* Density (1659.22 \* 1.08) giving a MAL Number of 1792  
 MAL Number = Density (1.08) \* Sum (1659.22) = 1792  
 Figure-after-the-dash = 3. Calculated from component data.  
 hydroxy acrylic resin (@36.60%) Increasing Total for FAD1 by 36598.2, giving 36598.2  
 XYLENES (@27.34%) Increasing Total for FAD3 by 2.73422801402, giving 2.73422801402  
 XYLENES (@27.34%) Increasing Total for FAD1 by 136.711400701, giving 36734.911400701  
 MONOAZO PIGMENT OF THE BENZIMIDAZOLONE RANGE (@9.12%) Increasing Total for FAD1 by 91.21, giving 36826.121400701  
 N-BUTYL ACETATE (@7.45%) Increasing Total for FAD1 by 7453.4615, giving 44279.582900701  
 TITANIUM DIOXIDE (@6.06%) Increasing Total for FAD1 by 6059.7095, giving 50339.292400701  
 ETHYLBENZENE (@4.88%) Increasing Total for FAD3 by 0.487980152, giving 3.22220816602  
 BARIUM SULPHATE (@3.85%) Increasing Total for FAD2 by 1.924, giving 1.924  
 N,N-1,6-HEXANEDIYLBIS (12-HYDROXY-OCTADECANEIMIDE) (@1.85%) Increasing Total for FAD1 by 18.53, giving 50357.822400701

2,6-DIMETHYLHEPTANONE (@0.57%) Increasing Total for FAD1 by 570, giving 50927.822400701  
2-BUTOXY ETHANOL (@0.57%) Increasing Total for FAD3 by 0.057, giving 3.27920816602  
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (@0.43%) Increasing Total for FAD1 by 428, giving 51355.822400701  
BLOCKED COPOLYMER (@0.26%) Increasing Total for FAD1 by 2.565, giving 51358.387400701  
cyclohexanone (@0.24%) Increasing Total for FAD1 by 242.25, giving 51600.637400701  
ALUMINUM HYDROXIDE (@0.22%) Increasing Total for FAD1 by 2.24315, giving 51602.880550701  
TOLUENE (@0.10%) Increasing Total for FAD3 by 0.00977041192, giving 3.28897857794  
2-HYDROXYETHYL METHACRYLATE (@0.0975952%) Increasing Total for FAD5 by 0.01951904, giving 0.01951904  
2-HYDROXYETHYL METHACRYLATE (@0.10%) Increasing Total for FAD3 by 0.0975952, giving 3.38657377794  
1-METHOXY-2-PROPYL ACETATE (@0.07%) Increasing Total for FAD1 by 71.25, giving 51674.130550701  
SILICA (@0.06%) Increasing Total for FAD1 by 64.09, giving 51738.220550701  
Siloxanes and Silicones, di-Me, [(triethoxysilyl)oxy]-terminated (@0.04%) Increasing Total for FAD1 by 42.75, giving 51780.970550701  
ALKOXYLATED BUTYL ETHER (@0.04%) Increasing Total for FAD3 by 0.02124108415, giving 3.40781486209  
ZIRCONIUM OXIDE (@0.03%) Increasing Total for FAD1 by 0.32045, giving 51781.291000701  
TRIMETHYLOLPROPANE (@0.03%) Increasing Total for FAD1 by 0.288405, giving 51781.579405701  
1-BUTANOL (@0.02%) Increasing Total for FAD1 by 22.233, giving 51803.812405701  
proprietary siloxane (@0.02%) Increasing Total for FAD1 by 19.7626, giving 51823.575005701  
ISOBUTYL ALCOHOL (@0.01%) Increasing Total for FAD1 by 14.157, giving 51837.732005701  
proprietary polyglycol (@0.01%) Increasing Total for FAD1 by 11.9977, giving 51849.729705701  
BENZENE (@0.00%) Increasing Total for FAD6 by 0.036717276, giving 0.036717276  
DIBUTYL TIN DILAURATE (@0.00%) Increasing Total for FAD6 by 0.0013871, giving 0.038104376  
DIBUTYL TIN DILAURATE (@0.00%) Increasing Total for FAD3 by 0.0055484, giving 3.41336326209  
ACETIC ACID (@0.00%) Increasing Total for FAD4 by 0.000029644, giving 0.000029644  
ACETIC ACID (@0.00%) Increasing Total for FAD3 by 0.00007411, giving 3.41343737209  
2-METHOXY-1-PROPYL ACETATE (@0.00%) Increasing Total for FAD6 by 0.0028215, giving 0.040925876  
organotin compound (@0.00%) Increasing Total for FAD1 by 0.5643, giving 51850.294005701  
OCTAMETHYLCYCLOTETRASILOXANE (@0.00%) Increasing Total for FAD3 by 0.0002574, giving 3.41369477209  
Decamethylcyclopentasiloxane (@0.00%) Increasing Total for FAD1 by 0.002574, giving 51850.296579701  
CUMENE (@0.00%) Increasing Total for FAD3 by 0.000121007, giving 3.41381577909  
COCONUT FATTY ACIDS (@0.00%) Increasing Total for FAD3 by 0.00002145, giving 3.41383722909  
PROPYLENE OXIDE (@0.00%) Increasing Total for FAD6 by 0.0000106535, giving 0.0409365295  
ACETALDEHYDE (@0.00%) Increasing Total for FAD3 by 0.000002717, giving 3.41383994609  
HYDROCHLORIC ACID (@0.00%) Increasing Total for FAD4 by 0.00000005434, giving 0.00002969834  
HYDROCHLORIC ACID (@0.00%) Increasing Total for FAD3 by 0.00000067925, giving 3.41384062534  
FORMALDEHYDE (@0.00%) Increasing Total for FAD6 by 0.0000002002, giving 0.0409367297  
FORMALDEHYDE (@0.00%) Increasing Total for FAD3 by 0.0000002002, giving 3.41384262734  
ETHYLENE OXIDE (@0.00%) Increasing Total for FAD6 by 0.000001001, giving 0.0409377307  
1,4-DIOXANE (@0.00%) Increasing Total for FAD6 by 0.00000001144, giving 0.04093774214  
1,4-DIOXANE (@0.00%) Increasing Total for FAD3 by 0.000001144, giving 3.41384377134  
METHYL ALCOHOL (@0.00%) Increasing Total for FAD6 by 0.00000000572, giving 0.04093774786  
METHYL ALCOHOL (@0.00%) Increasing Total for FAD3 by 0.0000001144, giving 3.41384388574  
METHYL CHLORIDE (@0.00%) Increasing Total for FAD1 by 0.0001144, giving 51850.296694101  
Figure-after-the-dash =3. Total of components with FAD=3 is >=1.

Low Boiling Liquid = False.

PROPYLENE OXIDE (@0.00%) Total increased by 0.00\*1/100=0.00. Running Total = 0.00

ACETALDEHYDE (@0.00%) Total increased by 0.00\*1/100=0.00. Running Total = 0.00

ETHYLENE OXIDE (@0.00%) Total increased by 0.00\*11/100=0.00. Running Total = 0.00

METHYL ALCOHOL (@0.00%) Total increased by  $0.00 \times 54 / 100 = 0.00$ . Running Total = 0.00  
METHYL CHLORIDE (@0.00%) Total increased by  $0.00 \times 476.19 / 100 = 0.00$ . 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** : 4-3  
**MAL Number** : 1791.95  
**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: 4-3

**Application:** When spraying in new\* booths if the operator is outside 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 and eye protection 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.

- Air-supplied half mask, coveralls and eye protection must be worn.

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 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.

- Air-supplied full mask 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.