

Audit - EU DK MAL Code

PPG VIKOTE 56 GREEN 4199

	Product as is	Ready-for-use mixture
MAL Code	5-3	Not applicable.
MAL Protection	<p>According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:</p> <p>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.</p> <p>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.</p> <p>MAL-code: 5-3</p> <p>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.</p> <p>- Air-supplied full mask must be worn.</p> <p>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.</p> <p>- Air-supplied full mask and coveralls must be worn.</p> <p>When spraying in existing* spray booths, if the operator is outside the spray zone.</p> <p>- Air-supplied full mask, arm protectors and apron must be worn.</p> <p>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.</p> <p>- Air-supplied full mask, coveralls and hood must be worn.</p>	Not applicable.

Not applicable.

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.

Not applicable.

Not applicable.

3277.3

Not applicable.



Figure-before-dash (from MAL Number) = 5
3200 < MAL Number [3277.3]
MAL Number = density * $\Sigma[\text{Conc}(i) * \text{MAL Factor}(i)] = 1.005 * 3261.0 = 3277.3$
Density (from Density (g/m³) data entry) = 1.005
 $\Sigma[\text{Conc}(i) * \text{MAL Factor}(i)] = 3261.0$
[Hydrocarbons, C9, aromatics] Conc * MAL Factor = 31.98% * 58 = 1854.8
MAL Factor entered against range: '>0' = 58
[XYLENES] Conc * MAL Factor = 16.00% * 46 = 735.8
MAL Factor entered against range: '>0' = 46
[SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC] Conc * MAL Factor = 8.4% * 58 = 487.2
MAL Factor entered against range: '>0' = 58
[ETHYLBENZENE] Conc * MAL Factor = 3.649% * 46 = 167.8
MAL Factor entered against range: '>0' = 46
[ETHYL ALCOHOL] Conc * MAL Factor = 0.3325% * 7 = 2.327
MAL Factor entered against range: '>0' = 7
[1-METHOXY-2-PROPYL ACETATE] Conc * MAL Factor = 0.2077% * 19 = 3.945
MAL Factor entered against range: '>0' = 19
[cyclohexanone] Conc * MAL Factor = 0.0993% * 70 = 6.951
MAL Factor entered against range: '>0' = 70
[N-BUTYL ACETATE] Conc * MAL Factor = 0.02631% * 14 = 0.3684
MAL Factor entered against range: '>0' = 14
[METHYL ALCOHOL] Conc * MAL Factor = 0.01753% * 54 = 0.9465
MAL Factor entered against range: '>0' = 54
[DIMETHYL GLUTARATE] Conc * MAL Factor = 0.009205% * 4 = 0.03682
MAL Factor entered against range: '>0' = 4
[DIMETHYL SUCCINATE] Conc * MAL Factor = 0.003151% * 5 = 0.01575
MAL Factor entered against range: '>0' = 5
[METHYL METHACRYLATE] Conc * MAL Factor = 0.0009826% * 46 = 0.04520
MAL Factor entered against range: '>0' = 46
[2-METHOXY-1-PROPYL ACETATE] Conc * MAL Factor = 0.0008411% * 181 = 0.1522
MAL Factor entered against range: '>0' = 181
[N-BUTYL METHACRYLATE] Conc * MAL Factor = 0.0004670% * 16 = 0.007473
MAL Factor entered against range: '>0' = 16
[CUMENE] Conc * MAL Factor = 0.00045% * 1000 = 0.45
MAL Factor entered against range: '>0' = 1000
[toluene] Conc * MAL Factor = 0.0003735% * 74 = 0.02764
MAL Factor entered against range: '>0' = 74
[PROPYLENE GLYCOL MONOMETHYL ETHER] Conc * MAL Factor = 0.0002380% * 28 = 0.006663
MAL Factor entered against range: '>0' = 28
[1-BUTANOL] Conc * MAL Factor = 0.0001743% * 67 = 0.01168
MAL Factor entered against range: '>0' = 67
[ACETIC ACID] Conc * MAL Factor = 0.00001923% * 400 = 0.007693
MAL Factor entered against range: '>0' = 400
[ISOBUTYL METHACRYLATE] Conc * MAL Factor = 0.000004718% * 1000 = 0.004718
MAL Factor entered against range: '>0' = 1000

Not applicable.

Low Boiling
Liquid
MAL Number
Audit (Textual)

[BENZENE] Conc * MAL Factor = 0.0000045% * 880 = 0.00396
MAL Factor entered against range: '>0' = 880

[ACETONE] Conc * MAL Factor = 0.00000525% * 23 = 0.00001208
MAL Factor entered against range: '>0' = 23

Ingredients with MAL factor of 0 [did not contribute] {Denmark MAL Code}

ACRYLIC RESIN (28%)
MAL Factor entered against range: '>0' = 0

PARAFFIN WAXES AND HYDROCARBON WAXES; CHLORINATED (4.1%)
MAL Factor entered against range: '>0' = 0

IRON HYDROXIDE OXIDE (4%)
MAL Factor entered against range: '>0' = 0

COPPER PHTHALOCYANINE GREEN (1.390%)
MAL Factor entered against range: '>0' = 0

QUATERN.AM.CPS,BIS(HYDROGEN.TALLOW ALKYL)DIMET.-,BENTONITE (0.9216%)
MAL Factor entered against range: '>0' = 0

N,N-1,6-HEXANEDIYLBIS (12-HYDROXY-OCTADECANEIMIDE) (0.4%)
MAL Factor entered against range: '>0' = 0

COPPER PHTHALOCYANINE (0.1326%)
MAL Factor entered against range: '>0' = 0

acrylic copolymer (0.1101%)
Default assumption [non-volatile] = 0

CARBON BLACK (0.06960%)
MAL Factor entered against range: '>0' = 0

modified polyurethane (0.0675%)
Default assumption [non-volatile] = 0

BLOCK COPOLYMER (0.03199%)
Default assumption [non-volatile] = 0

QUARTZ (>10 microns) (0.019%)
MAL Factor entered against range: '>0' = 0

QUARTZ (<10 microns) (0.009409%)
MAL Factor entered against range: '>0' = 0

copper phthalocyanine derivative (0.006682%)
From US (ACGIH) OELs: Product is assumed to be non-volatile, due to an OEL in mg/m³ being available, and no ppm OEL being available] = 0
Available value in mg/m³ = 0.2

Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, (1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)methyl derivs. (0.00594%)
MAL Factor entered against range: '>0' = 0

N,N"-naphthalene-1,5-diylbis[N'-(3-[(2-ethylhexyl)oxy]propyl]urea] (0.004%)
Default assumption [non-volatile] = 0

[[2,2',2''-[29H,31H-phthalocyaninetriyltris(methylene)]tris[1H-isoindole-1,3(2H)-dionato]](2-)-N29,N30,N31,N32]copper (0.002%)
MAL Factor entered against range: '>0' = 0

[N,N,N',N',N'',N''-hexaethyl-29H,31H-phthalocyaninetrimethylaminato(2-)-N29,N30,N31,N32]copper tris(dodecylbenzenesulphonate) (0.002%)
MAL Factor entered against range: '>0' = 0

DIMETHYL ADIPATE (0.001369%)
MAL Factor entered against range: '>0' = 0

ALUMINUM SILICATE (0.0007388%)
MAL Factor entered against range: '>0' = 0

Siloxanes and Silicones, methyl 3,3,3-trifluoropropyl (0.0006999%)
Default assumption [non-volatile] = 0

2-Propenoic acid, 2-methyl-, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo- (0.0004716%)
MAL Factor entered against range: '>0' = 0

dodecyltrimethylammonium chloride (0.0002747%)
Default assumption [non-volatile] = 0

WATER (0.00007458%)
MAL Factor entered against range: '>0' = 0

2-tert-butylaminoethyl methacrylate (0.00003931%)
Default assumption [non-volatile] = 0

dibutyltin dilaurate (0.0000135%)
MAL Factor entered against range: '>0' = 0

organotin compound (0.0000135%)
From US (ACGIH) OELs: Product is assumed to be non-volatile, due to an OEL in mg/m³ being available, and no ppm OEL being available] = 0
Available value in mg/m³ = 0.1

BUTYLATED HYDROXYTOLUENE (0.000007355%)
MAL Factor entered against range: '>0' = 0

DENATONIUM BENZOATE (0.000003325%)
Default assumption [non-volatile] = 0

TIN (0.0000006767%)
From US (ACGIH) OELs: Product is assumed to be non-volatile, due to an OEL in mg/m³ being available, and no ppm OEL being available] = 0
Available value in mg/m³ = 2

POLYCHLOROBIPHENYLS (0.0000006682%)
 From DK (Working Environment Authority) OELs: Product is assumed to be non-volatile, due to an OEL in mg/m³ being available, and no ppm OEL being available]

= 0

Available value in mg/m³ = 0.01
 N,N-Dimethyl-1-Aminododecane (0.0000003712%)
 MAL Factor entered against range: '>0' = 0
 4-METHOXYPHENOL (0.0000001966%)
 MAL Factor entered against range: '>0' = 0
 OCTAMETHYLCYCLOTETRASILOXANE (0.0000001%)
 MAL Factor entered against range: '>0' = 0
 HEXACHLOROBENZENE (0.000000072%)
 From DK (Working Environment Authority) OELs: Product is assumed to be non-volatile, due to an OEL in mg/m³ being available, and no ppm OEL being available]

= 0

Available value in mg/m³ = 0.025

Figure-after-dash (Ingredient(s) above the cut-off on their own) = 3
 Ingredients above the Figure-after-dash 3 concentration limit on their own {Denmark MAL Code}
 XYLENES (16.00%)
 Ingredient concentration is above the limit [10%]
 Stricter figure-after-dash numbers that are not available because $\Sigma [\text{ing conc} / \text{ing limit}] < 1$
 Figure-after-dash 6 calculated ratio: $\Sigma [\text{ing conc} / \text{ing limit}] = 0.008872885058$
 CARBON BLACK: Ing conc / Ing limit = 0.06960 / 25 = 0.002784
 Minimum value of concentration limit associated with figure-after-dash 6 = 25
 METHYL ALCOHOL: Ing conc / Ing limit = 0.01753 / 20 = 0.0008764
 Minimum value of concentration limit associated with figure-after-dash 6 = 20
 QUARTZ (<10 microns): Ing conc / Ing limit = 0.009409 / 10 = 0.0009409
 Minimum value of concentration limit associated with figure-after-dash 6 = 10
 2-METHOXY-1-PROPYL ACETATE: Ing conc / Ing limit = 0.0008411 / 0.2 = 0.004206
 Minimum value of concentration limit associated with figure-after-dash 6 = 0.2
 dibutyltin dilaurate: Ing conc / Ing limit = 0.0000135 / 1 = 0.0000135
 Minimum value of concentration limit associated with figure-after-dash 6 = 1
 BENZENE: Ing conc / Ing limit = 0.0000045 / 0.1 = 0.000045
 Minimum value of concentration limit associated with figure-after-dash 6 = 0.1
 POLYCHLOROBIPHENYLS: Ing conc / Ing limit = 0.0000006682 / 0.1 = 0.000006682
 Minimum value of concentration limit associated with figure-after-dash 6 = 0.1
 Figure-after-dash (OEL Criteria - Carcinogen) = 6
 DK OEL: Carcinogen CMR applicable
 HEXACHLOROBENZENE: Ing conc / Ing limit = 0.000000072 / 0.1 = 0.00000072
 Minimum value of concentration limit associated with figure-after-dash 6 = 0.1
 Figure-after-dash (CLP hazard) = 6
 GHS Status - EU
 Carcinogen - Category 1B - From 'Entered data'
 Entered data - [EU] [11] [Datalink]

Figure-after-dash 5 calculated ratio: $\Sigma [\text{ing conc} / \text{ing limit}] = 0.0007983250296$
 METHYL METHACRYLATE: Ing conc / Ing limit = 0.0009826 / 5 = 0.0001965
 Minimum value of concentration limit associated with figure-after-dash 5 = 5
 2-Propenoic acid, 2-methyl-, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-: Ing conc / Ing limit = 0.0004716 / 5 = 0.00009431
 Minimum value of concentration limit associated with figure-after-dash 5 = 5
 N-BUTYL METHACRYLATE: Ing conc / Ing limit = 0.0004670 / 1 = 0.0004670
 Minimum value of concentration limit associated with figure-after-dash 5 = 1
 2-tert-butylaminoethyl methacrylate: Ing conc / Ing limit = 0.00003931 / 1 = 0.00003931
 Minimum value of concentration limit associated with figure-after-dash 5 = 1
 Figure-after-dash (CLP hazard) = 5
 GHS Status - EU
 Skin sensitization - Category 1B - From 'Entered data'
 Entered data - [EU] [99] [User]

ISOBUTYL METHACRYLATE: Ing conc / Ing limit = 0.000004718 / 5 = 0.0000009435
 Minimum value of concentration limit associated with figure-after-dash 5 = 5
 4-METHOXYPHENOL: Ing conc / Ing limit = 0.0000001966 / 1 = 0.0000001966
 Minimum value of concentration limit associated with figure-after-dash 5 = 1

Figure-after-dash 4 calculated ratio: $\Sigma [\text{ing conc} / \text{ing limit}] = 0.0000011405912$
 ACETIC ACID: Ing conc / Ing limit = 0.00001923 / 25 = 0.0000007693
 Minimum value of concentration limit associated with figure-after-dash 4 = 25
 N,N-Dimethyl-1-Aminododecane: Ing conc / Ing limit = 0.0000003712 / 1 = 0.0000003712
 Minimum value of concentration limit associated with figure-after-dash 4 = 1