Audit - EU DK MAL Code

PPG AQUACOVER ONE 645 (TINTED)

	Product as is	Ready-for-use mixture
MAL Code	1-3	Not applicable.
MAL Protection	**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.	Not applicable.
	MAL-code: 1-3 **Application:** 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. - Coveralls 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. - Gas filter mask and coveralls must be worn. When spraying in existing* spray booths, if the operator is outside the spray zone. - Full mask with combined filter, 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 half mask and eye protection 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.	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.	
Low Boiling Liquid	Not applicable.	Not applicable.
MAL Number	197.4	Not applicable.
Audit (Textual)	1-3 Figure-before-dash (from MAL Number) = 1 100 < MAL Number [197.4] ≤ 400 MAL Number = density * Σ[Conc(i) * MAL Factor(i)] = 1.131 * 174.6 = 197.4 Density (from Density (g/m³) data entry) = 1.131 Σ[Conc(i) * MAL Factor(i)] = 174.6 [ammonia] Conc * MAL Factor = 0.1673% * 50 = 8.364 MAL Factor entered against range: '<0.2' = 50 [Ethanol, 2,2'-(butylimino)bis-] Conc * MAL Factor = 0.1588% * 1000 = 158.8 MAL Factor entered against range: '>0' = 1000 [(2-methoxymethylethoxy)propanol] Conc * MAL Factor = 0.02477% * 5 = 0.1238 MAL Factor entered against range: '>0' = 5 [ammonia, anhydrous] Conc * MAL Factor = 0.02049% * 50 = 1.025 MAL Factor entered against range: '<0.2' = 50 [DIMETHYLAMINOETHANOL] Conc * MAL Factor = 0.02004% * 280 = 5.610 MAL Factor entered against range: '>0' = 280 [2-BUTOXY ETHANOL] Conc * MAL Factor = 0.005339% * 25 = 0.1335 MAL Factor entered against range: '>0' = 25 [1-BUTANOL] Conc * MAL Factor = 0.001765% * 67 = 0.1183 MAL Factor entered against range: '>0' = 67 [ACETIC ACID] Conc * MAL Factor = 0.0002265% * 400 = 0.09061 MAL Factor entered against range: '>0' = 400 [PROPYLENE OXIDE] Conc * MAL Factor = 0.00003292% * 8333.3 = 0.2744 From DK (Working Environment Authority) OELs: OELs in mg/m³ and ppm available: 2 * 10000 / OEL in mg/m³ = 2 * 10000 / 2.4 = 8333.3 Available value in mg/m³ = 2.4 Available value in ppm = 1 Warning: ERCF of 2 used. Contact Authorities for MAL Factor. [HYDROCHLORIC ACID] Conc * MAL Factor = 0.00001741% * 2900 = 0.05048 MAL Factor entered against range: '>0' = 2900 [ACETALDEHYDE] Conc * MAL Factor = 0.0000004989% * 1000 = 0.0004989 MAL Factor entered against range: '>0' = 1000 [FORMALDEHYDE] Conc * MAL Factor = 0.0000003337% * 2500 = 0.0008342 MAL Factor entered against range: '<0.1' = 2500 [1,4-DIOXANE] Conc * MAL Factor = 0.0000003322% * 390 = 0.0001296 MAL Factor entered against range: '>0' = 390 [ETHYLENE OXIDE] Conc * MAL Factor = 0.0000002491% * 11111.1 = 0.002767 From DK (Working Environment Authority) OELs: OELs in mg/m³ and ppm available: 2 * 10000 / OEL in mg/m³ = 2 * 10000 / 1.8 = 11111.1 Available value in mg/m³ = 1.8 Available value in ppm = 1 Warning: ERCF of 2 used. Contact Authorities for MAL Factor. [METHYL ALCOHOL] Conc * MAL Factor = 0.0000001097% * 54 = 0.000005925 MAL Factor entered against range: '>0' = 54 [METHYL CHLORIDE] Conc * MAL Factor = 0.0000001097% * 476.2 = 0.00005225 From DK (Working Environment Authority) OELs: OELs in mg/m³ and ppm available: 2 * 10000 / OEL in mg/m³ = 2 * 10000 / 42 = 476.2 Available value in mg/m³ = 42 Available value in ppm = 20	Not applicable.

Warning: ERCF of 2 used. Contact Authorities for MAL Factor.
[ETHYLBENZENE] Conc * MAL Factor = 0.00000003432% * 46 = 0.000001579
MAL Factor entered against range: '>0' = 46
[toluene] Conc * MAL Factor = 0.0000000006882% * 74 = 0.00000005093
MAL Factor entered against range: '>0' = 74
[CUMENE] Conc * MAL Factor = 0.0000000006882% * 1000 = 0.0000006882
MAL Factor entered against range: '>0' = 1000
Ingredients with MAL factor of 0 [did not contribute] {Denmark MAL Code} (115.40844502261161%)
WATER (58.48%)
MAL Factor entered against range: '>0' = 0
proprietary acrylic copolymer (21.96%)
Default assumption [non-volatile] = 0
TITANIUM DIOXIDE (9.472%)
MAL Factor entered against range: '>0' = 0
fine disperse copolymer of acrylic acid esters (5.624%)
Default assumption [non-volatile] = 0
Alcohols, C16-18 and C18-unsatd., ethoxylated (2.203%)
MAL Factor entered against range: '>0' = 0
ALUMINUM SILICATE (1.857%)
MAL Factor entered against range: '>0' = 0
2-(2-BUTOXYETHOXY)ETHANOL (1.791%)
MAL Factor entered against range: '>0' = 0
SODIUM POTASSIUM ALUMINUM SILICATE (1.205%)
MAL Factor entered against range: '>0' = 0
IRON HYDROXIDE OXIDE (1.062%)
MAL Factor entered against range: '>0' = 0
POLYPROPYLENE GLYCOL (0.9107%)
Default assumption [non-volatile] = 0
TRIETHYLENEGLYCOL (0.9106%)
MAL Factor entered against range: '>0' = 0
Diiron trioxide (0.8497%)
MAL Factor entered against range: '>0' = 0
Bismuth vanadate (>10 microns) (0.8487%)
Default assumption [non-volatile] = 0
ARYLIDE PIGMENT YELLOW 74 (0.7962%)
MAL Factor entered against range: '>0' = 0
COPPER PHTALOCYANINE (0.6993%)
MAL Factor entered against range: '>0' = 0
DIKETO-PYRROLOPYRROL (0.6307%)
MAL Factor entered against range: '>0' = 0
alkyl polyglycol ether phosphate compound (0.5570%)
MAL Factor entered against range: '>0' = 0
LECITHINS (0.4674%)
MAL Factor entered against range: '>0' = 0
POLYURETHANE RESIN (0.4154%)
MAL Factor entered against range: '>0' = 0
COALESCING AID (0.4089%)
Default assumption [non-volatile] = 0
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(undecyloxy)-, branched and linear, sodium salt (0.4003%)
Default assumption [non-volatile] = 0
BARIUM SULFATE (0.3736%)
MAL Factor entered against range: '>0' = 0
COPPER PHTHALOCYANINE GREEN (0.3504%)
MAL Factor entered against range: '>0' = 0
ALUMINUM HYDROXIDE (0.2906%)
MAL Factor entered against range: '>0' = 0
POLYETHYLENE-POLYPROPYLENE POLYMER (0.2448%)
MAL Factor entered against range: '>0' = 0
proprietary surfactant (0.2336%)
Default assumption [non-volatile] = 0
CARBON BLACK (0.2225%)
MAL Factor entered against range: '>0' = 0
2,9 DIMETHYL QUINACRIDONE (0.2085%)
MAL Factor entered against range: '>0' = 0
POLYACRYLATE (0.1651%)
Default assumption [non-volatile] = 0
polyether (0.1402%)
Default assumption [non-volatile] = 0

Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-[2,4,6-tris(1-phenylethyl)phenoxy]- (0.1380%)
Default assumption [non-volatile] = 0
POLYSILOXANE MIXTURE (0.1316%)
Default assumption [non-volatile] = 0
ZIRCONIUM OXIDE (0.09970%)
MAL Factor entered against range: '>0' = 0
POLYMER, POLYFUNCTIONAL, NON-ANIONIC (0.09401%)
Default assumption [non-volatile] = 0
proprietary additive (0.08935%)
Default assumption [non-volatile] = 0
POTASSIUM HYDROXIDE (0.08878%)
MAL Factor entered against range: '>0' = 0
AMORPHOUS SILICA (0.08697%)
MAL Factor entered against range: '>0' = 0
3-Iodo-2-propynyl butylcarbamate (0.07439%)
MAL Factor entered against range: '>0' = 0
Tripropylene glycol monomethyl ether (0.06201%)
MAL Factor entered against range: '>0' = 0
polyurethane resin (0.05786%)
Default assumption [non-volatile] = 0
polyester acrylate (0.05475%)
Default assumption [non-volatile] = 0
reaction mass of mixed (3,3,4,4,5,5,6,6,7,7, 8,8,8- tridecafluorooctyl) phosphates, ammonium salt (0.05190%)
Default assumption [non-volatile] = 0
polyurethane copolymer (0.05107%)
Default assumption [non-volatile] = 0
SODIUM NITRITE (0.04580%)
MAL Factor entered against range: '>0' = 0
TRIMETHYLOLPROPANE (0.04477%)
MAL Factor entered against range: '>0' = 0
HYDROXYETHYL CELLULOSE (0.04089%)
MAL Factor entered against range: '>0' = 0
proprietary defoamer (0.03271%)
Default assumption [non-volatile] = 0
1,2-BENZISOTHIAZOLONE (0.03139%)
MAL Factor entered against range: '>0' = 0
polycarbonic acid ammonium salt (0.03096%)
Default assumption [non-volatile] = 0
ZIRCONIUM TETRAHYDROXIDE (0.02991%)
MAL Factor entered against range: '>0' = 0
AMMONIUM BENZOATE (0.02862%)
MAL Factor entered against range: '>0' = 0
PYRROLO[3,4-C]PYRROLE-1,4-DIONE,3,6-BIS[4-(1,1-DIMETHYLETHY (0.02625%)
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 = 5
polyester copolymer (0.02505%)
Default assumption [non-volatile] = 0
TRIETHANOL AMINE (0.01656%)
MAL Factor entered against range: '>0' = 0
POLYETHYLENE GLYCOL (0.01656%)
MAL Factor entered against range: '>0' = 0
modified polyether polymer (0.01638%)
Default assumption [non-volatile] = 0
ZINC OXIDE (0.01499%)
MAL Factor entered against range: '>0' = 0
ISOINDOLINE PIGMENT YELLOW 110 (0.01466%)
Default assumption [non-volatile] = 0
BLOCK COPOLYMER (0.01442%)
Default assumption [non-volatile] = 0
POLYOXYALKYLENES (0.01331%)
Default assumption [non-volatile] = 0
QUARTZ (>10 microns) (0.01125%)
MAL Factor entered against range: '>0' = 0
QUARTZ (<10 microns) (0.008977%)
MAL Factor entered against range: '>0' = 0
POLYETHER SILOXANE COPOLYMER (0.008908%)
Default assumption [non-volatile] = 0
polyethylene glycol monobutyl ether (0.008826%)

Default assumption [non-volatile] = 0
ALUMINUM OXIDE (0.008698%)
MAL Factor entered against range: '>0' = 0
SILICA (0.008674%)
MAL Factor entered against range: '>0' = 0
TITANIUM DIOXIDE (<10 microns) (0.008525%)
MAL Factor entered against range: '>0' = 0
STRONTIUM SULFATE (0.006780%)
MAL Factor entered against range: '>0' = 0
pyrithione zinc (0.005496%)
MAL Factor entered against range: '>0' = 0
ETHOXYLATED HEXANOL (0.004415%)
Default assumption [non-volatile] = 0
2-BROMO-2-NITRO-1,3-PROPANEDIOL (0.003566%)
MAL Factor entered against range: '>0' = 0
SODIUM SULPHATE (0.002707%)
MAL Factor entered against range: '>0' = 0
CALCIUM SULFATE (0.002672%)
MAL Factor entered against range: '>0' = 0
proprietary inorganic salts (0.002260%)
Default assumption [non-volatile] = 0
MAGNESIUM SILICATE (0.001445%)
MAL Factor entered against range: '>0' = 0
2,4,7,9-tetramethyldec-5-yne-4,7-diol (0.001104%)
MAL Factor entered against range: '>0' = 0
ISOTHIAZOLONE SOLUTION (0.001076%)
Default assumption [non-volatile] = 0
GRAPHITE (0.001069%)
MAL Factor entered against range: '>0' = 0
proprietary foam destroying polysiloxanes (0.001042%)
Default assumption [non-volatile] = 0
ETHYLENE GLYCOL (0.0009125%)
MAL Factor entered against range: '>0' = 0
DISODIUM PHOSPHATE (0.0009039%)
MAL Factor entered against range: '>0' = 0
Bismuth vanadate (<10 microns) (0.0008854%)
Default assumption [non-volatile] = 0
POLYOXYETHYLENE (20) STEARYL ETHER (0.0008463%)
MAL Factor entered against range: '>0' = 0
polysaccharide (0.0007883%)
Default assumption [non-volatile] = 0
SODIUM HYDROGEN PHOSPHATE (NAH2PO4) (0.0006734%)
MAL Factor entered against range: '>0' = 0
SILICA GEL (0.0004655%)
MAL Factor entered against range: '>0' = 0
SILANE,DICHLORODIMETHYL-,REACTION PRODUCTS WITH SILICA (0.0004009%)
MAL Factor entered against range: '>0' = 0
Oxirane, 2-phenyl-, polymer with oxirane, mono(3,5,5-trimethylhexyl) ether (0.0003556%)
MAL Factor entered against range: '>0' = 0
polyurethane solution (0.0003504%)
Default assumption [non-volatile] = 0
Glycerides, C8-10 mono-, di-, and tri-, ethoxylated (0.0003416%)
Default assumption [non-volatile] = 0
DIETHYLENE GLYCOL (0.0002595%)
MAL Factor entered against range: '>0' = 0
SODIUM NITRATE (0.0002180%)
MAL Factor entered against range: '>0' = 0
Triethyleneglycol monobutylether (0.0002083%)
MAL Factor entered against range: '>0' = 0
Alcohols, C16-18, ethoxylated propoxylated (0.0001892%)
MAL Factor entered against range: '>0' = 0
ZINC (0.0001314%)
MAL Factor entered against range: '>0' = 0
BUTYLATED HYDROXYTOLUENE (0.00009875%)
MAL Factor entered against range: '>0' = 0
residual monomers (0.00009582%)
Default assumption [non-volatile] = 0
SODIUM CHLORIDE (0.00008258%)

MAL Factor entered against range: '>0' = 0
sodium hydroxide (0.00004047%)
MAL Factor entered against range: '>0' = 0
2-METHYL-4-ISOTHIAZOLIN-3-ONE (0.00003592%)
MAL Factor entered against range: '>0' = 0
Decamethylcyclopentasiloxane (0.00002656%)
MAL Factor entered against range: '>0' = 0
dodecamethylcyclohexasiloxane (0.00002656%)
Default assumption [non-volatile] = 0
ETHANOL;2-(2-ETHOXYETHOXY) (0.00002083%)
MAL Factor entered against range: '>0' = 0
Triethylene glycol monoethyl ether (0.00002083%)
Default assumption [non-volatile] = 0
octamethylcyclotetrasiloxane (0.00001988%)
MAL Factor entered against range: '>0' = 0
2-ETHYLHEXANOIC ACID (0.000008595%)
MAL Factor entered against range: '>0' = 0
organo zinc compound (0.000001051%)
Default assumption [non-volatile] = 0
TIN (0.0000003616%)
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
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} (0.08878018432%)
POTASSIUM HYDROXIDE (0.08878%)
Ingredient concentration is above the limit [0.06%]
Stricter figure-after-dash numbers that are not available because Σ [ing conc / ing limit] < 1
Figure-after-dash 6 calculated ratio: Σ [ing conc / ing limit] = 0.504054872374643
CARBON BLACK: Ing conc / Ing limit = 0.2225 / 25 = 0.008898
Minimum value of concentration limit associated with figure-after-dash 6 = 25
reaction mass of mixed (3,3,4,4,5,5,6,6,7,7, 8,8,8- tridecafluorooctyl) phosphates, ammonium salt: Ing conc / Ing limit = 0.05190 / 0.2 = 0.2595
Minimum value of concentration limit associated with figure-after-dash 6 = 0.2
Figure-after-dash (CLP hazard) = 6
GHS Status - EU
Acute toxicity - Inhalation (overall) - Category 1
Acute toxicity - Inhalation (dust/mist) - Category 1 - From 'Entered data'
Entered data - [EU] [99] [User]
SODIUM NITRITE: Ing conc / Ing limit = 0.04580 / 0.2 = 0.2290
Minimum value of concentration limit associated with figure-after-dash 6 = 0.2
QUARTZ (<10 microns): Ing conc / Ing limit = 0.008977 / 10 = 0.0008977
Minimum value of concentration limit associated with figure-after-dash 6 = 10
ISOTHIAZOLONE SOLUTION: Ing conc / Ing limit = 0.001076 / 0.2 = 0.005381
Minimum value of concentration limit associated with figure-after-dash 6 = 0.2
Figure-after-dash (CLP hazard) = 6
GHS Status - EU
Acute toxicity - Oral - Category 3 - From 'Entered data'
Entered data - [EU] [13] [Datalink]
Acute toxicity - Dermal - Category 2 - From 'Entered data'
Entered data - [EU] [13] [Datalink]
Acute toxicity - Inhalation (overall) - Category 2
Acute toxicity - Inhalation (vapours) - Category 2 - From 'Entered data - corrected for inhalation test type'
Entered data corrected based on other product properties - [EU] [13] [Datalink]
Justification of Acute Toxicity Test Type
LC50 Vapour 0.171 mg/L (4 hour) - Rat
2-METHYL-4-ISOTHIAZOLIN-3-ONE: Ing conc / Ing limit = 0.00003592 / 1 = 0.00003592
Minimum value of concentration limit associated with figure-after-dash 6 = 1
PROPYLENE OXIDE: Ing conc / Ing limit = 0.00003292 / 0.1 = 0.0003292
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] [9] [Datalink]
Germ cell mutagenicity - Category 1B - From 'Entered data'
Entered data - [EU] [9] [Datalink]
FORMALDEHYDE: Ing conc / Ing limit = 0.0000003337 / 1 = 0.0000003337
Minimum value of concentration limit associated with figure-after-dash 6 = 1
1,4-DIOXANE: Ing conc / Ing limit = 0.0000003322 / 10 = 0.00000003322
Minimum value of concentration limit associated with figure-after-dash 6 = 10

ETHYLENE OXIDE: Ing conc / Ing limit = 0.0000002491 / 0.1 = 0.000002491
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] [14] [Datalink]
Germ cell mutagenicity - Category 1B - From 'Entered data'
Entered data - [EU] [14] [Datalink]
Reproductive toxicity
Calculation intermediates involved in final hazard assignment
Reproductive toxicity - Fertility - Category 1B - Effect On: Fertility - From 'Entered data'
Entered data - [EU] [14] [Datalink]
Reproductive toxicity - Unborn child - Category 2 - Effect On: UnbornChild - From 'Entered data'
Entered data - [EU] [14] [Datalink]
METHYL ALCOHOL: Ing conc / Ing limit = 0.0000001097 / 20 = 0.000000005486
Minimum value of concentration limit associated with figure-after-dash 6 = 20
METHYL CHLORIDE: Ing conc / Ing limit = 0.0000001097 / 0.1 = 0.000001097
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
Figure-after-dash 4 calculated ratio: Σ [ing conc / ing limit] = 0.094198349875527257142857142 8
ammonia: Ing conc / Ing limit = 0.1673 / 35 = 0.004780
Minimum value of concentration limit associated with figure-after-dash 4 = 35
POTASSIUM HYDROXIDE: Ing conc / Ing limit = 0.08878 / 1 = 0.08878
Minimum value of concentration limit associated with figure-after-dash 4 = 1
ammonia, anhydrous: Ing conc / Ing limit = 0.02049 / 35 = 0.0005856
Minimum value of concentration limit associated with figure-after-dash 4 = 35
ACETIC ACID: Ing conc / Ing limit = 0.0002265 / 25 = 0.000009061
Minimum value of concentration limit associated with figure-after-dash 4 = 25
sodium hydroxide: Ing conc / Ing limit = 0.00004047 / 1 = 0.00004047
Minimum value of concentration limit associated with figure-after-dash 4 = 1
HYDROCHLORIC ACID: Ing conc / Ing limit = 0.00001741 / 5 = 0.000003482
Minimum value of concentration limit associated with figure-after-dash 4 = 5