

Audit - EU DK MAL Code

PSX 700A CLEAR COAT RESIN

	Product as is	Ready-for-use mixture
MAL Code	1-6	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. MAL-code: 1-6 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. 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. - Protective clothing 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 protective clothing must be worn. When spraying in existing* spray booths, if the operator is outside the spray zone. - Air-supplied full mask and protective clothing 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, protective clothing 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.	Not applicable.

- Air-supplied full mask, protective clothing and hood must be worn.

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.

Low Boiling
Liquid
MAL Number
Audit (Textual)

267.2

Not applicable.

1.6

Not applicable.

Figure-before-dash (from MAL Number) = 1
100 < MAL Number [267.2] ≤ 400
MAL Number = density * Σ[Conc(i) * MAL Factor(i)] = 1.121 * 238.4 = 267.2
Density (from Density (g/m³) data entry) = 1.121
Σ[Conc(i) * MAL Factor(i)] = 238.4
[XYLENES] Conc * MAL Factor = 1.364% * 46 = 62.73
MAL Factor entered against range: '>0' = 46
[ETHYLBENZENE] Conc * MAL Factor = 0.8923% * 46 = 41.05
MAL Factor entered against range: '>0' = 46
[METHYL ALCOHOL] Conc * MAL Factor = 0.3384% * 54 = 18.27
MAL Factor entered against range: '>0' = 54
[ETHYL ALCOHOL] Conc * MAL Factor = 0.3293% * 7 = 2.305
MAL Factor entered against range: '>0' = 7
[ACETIC ACID] Conc * MAL Factor = 0.03734% * 400 = 14.94
MAL Factor entered against range: '>0' = 400
[ISOPROPYL ALCOHOL] Conc * MAL Factor = 0.002994% * 29 = 0.08683
MAL Factor entered against range: '>0' = 29
[CUMENE] Conc * MAL Factor = 0.002964% * 1000 = 2.964
MAL Factor entered against range: '>0' = 1000
[Diglycidyl ether OR 2,2'-(oxybis(methylene))bisoxirane] Conc * MAL Factor = 0.002483% * 37735.8 = 93.69
From DK (Working Environment Authority) OELs: OELs in mg/m³ and ppm available: 2 * 10000 / OEL in mg/m³ = 2 * 10000 / 0.53 = 37735.8
Available value in mg/m³ = 0.53
Available value in ppm = 0.1
Warning: ERCF of 2 used. Contact Authorities for MAL Factor.
[toluene] Conc * MAL Factor = 0.002421% * 74 = 0.1791
MAL Factor entered against range: '>0' = 74
[octamethyltrisiloxane] Conc * MAL Factor = 0.001146% * 50 = 0.05728
Default factor for Vapor Pressure ≥ 0.1 mm Hg = 50
Vapor Pressure ≥ 0.1 mm Hg
Vapor Pressure (mm Hg) from entered value = 3
[EPICHLOROHYDRIN] Conc * MAL Factor = 0.0001910% * 5300 = 1.012
MAL Factor entered against range: '>0' = 5300
[PROPYLENE OXIDE] Conc * MAL Factor = 0.0001113% * 8333.3 = 0.9273
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.
[ACETALDEHYDE] Conc * MAL Factor = 0.00001320% * 1000 = 0.01320
MAL Factor entered against range: '>0' = 1000
[FORMALDEHYDE] Conc * MAL Factor = 0.00000943% * 2500 = 0.02358
MAL Factor entered against range: '<0.1' = 2500
[ETHYLENE OXIDE] Conc * MAL Factor = 0.00000943% * 11111.1 = 0.1048

From DK (Working Environment Authority) OELs: OELs in mg/m³ and ppm available: $2 * 10000 / \text{OEL in mg/m}^3 = 2 * 10000 / 1.8 = 11111.1$

Available value in mg/m³ = 1.8

Available value in ppm = 1

Warning: ERCF of 2 used. Contact Authorities for MAL Factor.

[1,4-DIOXANE] Conc * MAL Factor = 0.000007544% * 390 = 0.002942

MAL Factor entered against range: '>0' = 390

[HYDROCHLORIC ACID] Conc * MAL Factor = 0.00000741% * 2900 = 0.002149

MAL Factor entered against range: '>0' = 2900

[BENZENE] Conc * MAL Factor = 0.00000494% * 880 = 0.0004347

MAL Factor entered against range: '>0' = 880

Ingredients with MAL factor of 0 [did not contribute] {Denmark MAL Code} (97.027630925%)

Dimethyl, phenyl siloxane, methoxy-terminated (67.67%)

MAL Factor entered against range: '>0' = 0

cyclohexanol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (19.10%)

Default assumption [non-volatile] = 0

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (4.095%)

Default assumption [non-volatile] = 0

POLYETHER (1.853%)

MAL Factor entered against range: '>0' = 0

DIBUTYL TIN DIACETATE (1.774%)

MAL Factor entered against range: '>0' = 0

Acrylic Resin (0.7512%)

Default assumption [non-volatile] = 0

POLYAMIDE (0.5988%)

MAL Factor entered against range: '>0' = 0

POLYDIMETHYLSILOXANE (0.5103%)

MAL Factor entered against range: '>0' = 0

Siloxanes and Silicones, dimethyl, 3-hydroxypropyl methyl, ethers with polyethylene glycol acetate (0.3258%)

Default assumption [non-volatile] = 0

ETHYLENE GLYCOL MONOPHENYL ETHER (0.0988%)

MAL Factor entered against range: '>0' = 0

triacetoxybutylstannane (0.05601%)

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

Polyethylene glycol allyl ether acetate (0.04780%)

Default assumption [non-volatile] = 0

LUBRICANT (0.03962%)

Default assumption [non-volatile] = 0

SILANE,DICHLORODIMETHYL-,REACTION PRODUCTS WITH SILICA (0.02652%)

MAL Factor entered against range: '>0' = 0

octamethylcyclotetrasiloxane (0.02349%)

MAL Factor entered against range: '>0' = 0

proprietary poly(oxy-1,2-ethanediyl), α-methyl-ω-(2-propen-1-yloxy)- (0.01433%)

Default assumption [non-volatile] = 0

Decamethylcyclopentasiloxane (0.01406%)

MAL Factor entered against range: '>0' = 0

Polyethylene glycol diacetate (0.01185%)

Default assumption [non-volatile] = 0

DIETHYLENE GLYCOL MONOPHENYL ETHER (0.009386%)

Default assumption [non-volatile] = 0

dodecamethylcyclohexasiloxane (0.005711%)

Default assumption [non-volatile] = 0

OLEIC ACID (0.001130%)

MAL Factor entered against range: '>0' = 0

BUTYLATED HYDROXYTOLUENE (0.00004891%)

MAL Factor entered against range: '>0' = 0

Figure-after-dash (Ingredient(s) above the cut-off on their own) = 6

Ingredients above the Figure-after-dash 6 concentration limit on their own {Denmark MAL Code} (1.77365%)

DIBUTYL TIN DIACETATE (1.774%)

Ingredient concentration is above the limit [1%]