

Audit - EU DK MAL Code

SIGMASHIELD 220/420/460/880/880GF HARDENER

	Product as is	Ready-for-use mixture
MAL Code	3-5	 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: 3-5 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. - 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. 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. - Air-supplied half mask, protective clothing and eye protection must be worn. When spraying in new* booths if the operator is outside the spray zone. - Air-supplied half mask and eye protection must be worn. When spraying in existing* spray 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. - Air-supplied full mask and protective clothing 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, protective clothing 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
MAL Number
Audit (Textual)

Not applicable.

Not applicable.

1460.1

Not applicable.

3.5
Figure-before-dash (from MAL Number) = 3
800 < MAL Number [1460.1] ≤ 1600
MAL Number = density * Σ[Conc(i) * MAL Factor(i)] = 1.02 * 1431.5 = 1460.1
Density (from Density (g/m³) data entry) = 1.02
Σ[Conc(i) * MAL Factor(i)] = 1431.5
[XYLENES] Conc * MAL Factor = 19.20% * 46 = 883.2
MAL Factor entered against range: '0 to 100' = 46
[ISOBUTYL ALCOHOL] Conc * MAL Factor = 5.7% * 67 = 381.9
MAL Factor entered against range: '0 to 100' = 67
[ETHYLBENZENE] Conc * MAL Factor = 3.405% * 46 = 156.6
MAL Factor entered against range: '0 to 100' = 46
[toluene] Conc * MAL Factor = 0.0908% * 74 = 6.719
MAL Factor entered against range: '0 to 100' = 74
[BENZENE] Conc * MAL Factor = 0.0034% * 880 = 2.992
MAL Factor entered against range: '0 to 100' = 880
Ingredients with MAL factor of 0 [did not contribute] {Denmark MAL Code}
Epoxy Amine Resin (33.37%)
Default assumption [non-volatile] = 0
polyoxy propylene triamine (16.06%)
MAL Factor entered against range: '0 to 100' = 0
BENZYL ALCOHOL (10.35%)
MAL Factor entered against range: '0 to 100' = 0
4,4-ISOPROPYLIDENEDIPHENOL (4.8%)
MAL Factor entered against range: '0 to 100' = 0
1,3-Benzenedimethanamine (4.13%)
MAL Factor entered against range: '0 to 100' = 0
2,4,6-tris(dimethylaminomethyl)phenol (2.517%)
MAL Factor entered against range: '0 to 100' = 0
BIS(DIMETHYLAMINOMETHYL)PHENOL (0.2828%)
MAL Factor entered against range: '0 to 100' = 0
WATER (0.0507%)
MAL Factor entered against range: '0 to 100' = 0
BENZALDEHYDE (0.0208%)
Default assumption [non-volatile] = 0
BENZYL ETHER (0.0208%)
Default assumption [non-volatile] = 0
Figure-after-dash (Ingredient(s) above the cut-off on their own) = 5
Ingredients above the Figure-after-dash 5 concentration limit on their own {Denmark MAL Code}
Epoxy Amine Resin (33.37%)
Ingredient concentration is above the limit [1%]
Figure-after-dash (CLP hazard) = 5
GHS Status - EU
Skin sensitization - Category 1B - From 'Entered data'

Not applicable.

Entered data - [EU] [99] [User]

4,4-ISOPROPYLIDENEDIPHENOL (4.8%)

Ingredient concentration is above the limit [1%]

1,3-Benzenedimethanamine (4.13%)

Ingredient concentration is above the limit [1%]

Stricter figure-after-dash numbers that are not available because $\Sigma [\text{ing conc} / \text{ing limit}] < 1$

Figure-after-dash 6 calculated ratio: $\Sigma [\text{ing conc} / \text{ing limit}] = 0.034$

BENZENE: $\text{Ing conc} / \text{Ing limit} = 0.0034 / 0.1 = 0.034$

Minimum value of concentration limit associated with figure-after-dash 6 = 0.1