

# Audit - EU DK MAL Code

## SIGMAZINC 102 HS / 109 HS HARDENER

	Product as is	Ready-for-use mixture
MAL Code	4-5	<input checked="" type="checkbox"/> Not applicable.
MAL Protection	<p><b>According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:</b></p> <p><b>General:</b> 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: 4-5</p> <p><b>Application:</b> 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.</p> <p>- Protective clothing 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. 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 half mask, protective clothing and eye protection must be worn.</p> <p>When spraying in new* booths if the operator is outside the spray zone.</p> <p>- Air-supplied half mask and eye protection must be worn.</p> <p>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. 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 protective clothing 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>	<input checked="" type="checkbox"/> 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)

1606.5

Not applicable.

4-5

Not applicable.

Figure-before-dash (from MAL Number) = 4  
 $1600 < \text{MAL Number [1606.5]} \leq 3200$   
 $\text{MAL Number} = \text{density} * \sum [\text{Conc}(i) * \text{MAL Factor}(i)] = 0.95 * 1691.0 = 1606.5$   
Density (from Density (g/m<sup>3</sup>) data entry) = 0.95  
 $\sum [\text{Conc}(i) * \text{MAL Factor}(i)] = 1691.0$   
[XYLENES] Conc \* MAL Factor = 14.28% \* 46 = 656.9  
MAL Factor entered against range: '0 to 100' = 46  
[ISOBUTYL ALCOHOL] Conc \* MAL Factor = 13.7% \* 67 = 917.9  
MAL Factor entered against range: '0 to 100' = 67  
[ETHYLBENZENE] Conc \* MAL Factor = 2.52% \* 46 = 115.9  
MAL Factor entered against range: '0 to 100' = 46  
[METHYL ALCOHOL] Conc \* MAL Factor = 0.0057% \* 54 = 0.3078  
MAL Factor entered against range: '0 to 100' = 54  
Ingredients with MAL factor of 0 [did not contribute] {Denmark MAL Code}  
POLYAMIDE (27.21%)  
MAL Factor entered against range: '0 to 100' = 0  
POLYAMINOAMIDE ADDUCT (20.8%)  
Default assumption [non-volatile] = 0  
BENZYL ALCOHOL (13.49%)  
MAL Factor entered against range: '0 to 100' = 0  
2,4,6-tris(dimethylaminomethyl)phenol (4.25%)  
MAL Factor entered against range: '0 to 100' = 0  
TRIETHYLENETETRAMINE (2.990%)  
MAL Factor entered against range: '0 to 100' = 0  
BIS(DIMETHYLAMINOMETHYL)PHENOL (0.75%)  
MAL Factor entered against range: '0 to 100' = 0  
BENZALDEHYDE (0.0027%)  
Default assumption [non-volatile] = 0  
BENZYL ETHER (0.0027%)  
Default assumption [non-volatile] = 0  
WATER (0.0017%)  
MAL Factor entered against range: '0 to 100' = 0  
1,1'-METHYLENEBISBENZENE (0.0014%)  
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}  
TRIETHYLENETETRAMINE (2.990%)  
Ingredient concentration is above the limit [1%]  
Stricter figure-after-dash numbers that are not available because  $\sum [\text{ing conc} / \text{ing limit}] < 1$   
Figure-after-dash 6 calculated ratio:  $\sum [\text{ing conc} / \text{ing limit}] = 0.000285$   
METHYL ALCOHOL:  $\text{Ing conc} / \text{Ing limit} = 0.0057 / 20 = 0.000285$   
Minimum value of concentration limit associated with figure-after-dash 6 = 20