



**SAFETY DATA SHEET (1907/2006)**

R0717853

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ESCALOL 597

## 1. EXPOSURE ASSESSMENT

### Short description of all exposure scenarios

Short description of all exposure scenarios with their use descriptors and life cycle stage

| Number (ES) | Short description of exposure scenario | Product Category (PC) | Life cycle stage covered by ES |             |            |              |          | Sector of use (SU) | Process category (PROC)             | Article Category (AC) | Environmental release category (ERC) |              |
|-------------|----------------------------------------|-----------------------|--------------------------------|-------------|------------|--------------|----------|--------------------|-------------------------------------|-----------------------|--------------------------------------|--------------|
|             |                                        |                       | Manufacture                    | Formulation | End use    |              |          |                    |                                     |                       |                                      | Service Life |
|             |                                        |                       |                                |             | Industrial | Professional | Consumer |                    |                                     |                       |                                      |              |
| 2           | Formulation of cosmetic ingredients    | 39                    |                                | x           |            |              |          |                    | 1, 2, 3, 5, 8a, 9, 15               | 2                     |                                      |              |
| 3           | Formulation of preparations            | 9a, 9b, 32            |                                | x           |            |              |          |                    | 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 14, 15 | 2                     |                                      |              |

|   |                                                                                           |    |  |  |  |   |   |  |  |        |                                 |  |    |
|---|-------------------------------------------------------------------------------------------|----|--|--|--|---|---|--|--|--------|---------------------------------|--|----|
| 5 | Industrial use of processing aid in processes and products, not becoming part of articles | 32 |  |  |  | x |   |  |  | 10, 12 | 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 15 |  | 4  |
| 7 | Wide dispersive indoor use of cosmetic ingredients                                        | 39 |  |  |  |   | x |  |  |        |                                 |  | 8a |
| 8 | Wide dispersive outdoor use of cosmetic ingredients                                       | 39 |  |  |  |   | x |  |  |        |                                 |  | 8d |

## 1.2. Formulation of cosmetic ingredients

### 1.2.1. Exposure scenario

#### Description of the ES

|                                                                              |                                            |
|------------------------------------------------------------------------------|--------------------------------------------|
| <b>Number of the ES</b>                                                      | 2                                          |
| <b>Title of exposure scenario</b>                                            | <i>Formulation of cosmetic ingredients</i> |
| <b>Name(s) of contributing worker scenarios and corresponding PROC</b>       | <i>PROC 1, 2, 3, 5, 8a, 8b, 9, 15</i>      |
| <b>Name(s) of contributing consumer scenarios and corresponding AC/PC</b>    | <i>PC 39</i>                               |
| <b>Name of contributing environmental scenario (1) and corresponding ERC</b> | <i>Formulation, ERC2</i>                   |
| <b>Contributing exposure scenario (1) controlling environmental exposure</b> |                                            |
| <b>Product characteristics</b>                                               |                                            |
| <b>Frequency and duration of use</b>                                         |                                            |
| <i>Continuous release.</i>                                                   |                                            |
| <b>Environment factors and operational conditions</b>                        |                                            |
| Emission days                                                                | <i>(days/year)</i>                         |
| Local freshwater dilution factor                                             | <i>10 (default)</i>                        |
| Local marine water dilution factor                                           | <i>100 (default)</i>                       |
| <i>Indoor / Outdoor use.</i>                                                 |                                            |
| Release fraction to air from process                                         | <i>0 (COLIPA)</i>                          |
| Release fraction to wastewater from process                                  | <i>0.01 (COLIPA)</i>                       |
| Release fraction to soil from process                                        | <i>0 (COLIPA)</i>                          |
| <b>Technical conditions and measures</b>                                     |                                            |
| Type of STP                                                                  | <i>local</i>                               |

## 1.2.2. Exposure estimation

Estimated exposure for the environment, scenario 2

Calculation tool used: ECETOC TRA Environment version 2.0

| Compartment                                | PEC / TDI  | Unit                                   | Remark |
|--------------------------------------------|------------|----------------------------------------|--------|
| STP                                        | 0.0316     | mg L <sup>-1</sup>                     |        |
| Freshwater                                 | 0.0033     | mg L <sup>-1</sup>                     |        |
| Freshwater sediment                        | 131.9764   | mg kgwwt <sup>-1</sup>                 |        |
| Soil                                       | 28.3092    | mg kgwwt <sup>-1</sup>                 |        |
| Marine water                               | 0.0004     | mg L <sup>-1</sup>                     |        |
| Marine water sediment                      | 14.9972    | mg kgwwt <sup>-1</sup>                 |        |
| Total daily intake man via the environment | 2.7949E-06 | mg.kgdw <sup>-1</sup> .d <sup>-1</sup> |        |
| Compartment                                | PEC        | Unit                                   | Remark |
| Air (annual average)                       | 1.7822E-05 | mgc.m <sup>-3</sup>                    |        |

## 1.5. Industrial use of processing aid in processes and products, not becoming part of articles

### 1.5.1. Exposure scenario

Description of the ES

|                                                                       |                                                                                                  |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Number of the ES                                                      | 5                                                                                                |
| Title of exposure scenario                                            | <i>Industrial use of processing aid in processes and products, not becoming part of articles</i> |
| Name(s) of contributing worker scenarios and corresponding PROC       | PROC 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 15                                                             |
| Name(s) of contributing consumer scenarios and corresponding AC/PC    | PC 32; AC 13                                                                                     |
| Name of contributing environmental scenario (1) and corresponding ERC | <i>Use, ERC4</i>                                                                                 |
| Contributing exposure scenario (1) controlling environmental exposure |                                                                                                  |
| Product characteristics                                               |                                                                                                  |
| Frequency and duration of use                                         |                                                                                                  |
| <i>Continuous release.</i>                                            |                                                                                                  |

| <b>Environment factors and operational conditions</b>                                   |                               |
|-----------------------------------------------------------------------------------------|-------------------------------|
| Emission days                                                                           | 100 (days/year)               |
| Local freshwater dilution factor                                                        | 10                            |
| Local marine water dilution factor <i>Indoor / Outdoor use.</i>                         | 100                           |
| <b>Technical conditions and measures</b>                                                |                               |
| Treat air emissions to provide a typical removal efficiency                             | ≥95 (%)                       |
| Air treatment measures considered suitable are, e.g.                                    | Activated charcoal filtration |
| Treat wastewater (prior to discharge to STP) to provide the required removal efficiency | ≥ 95 (%)                      |
| Wastewater treatment measures considered suitable are, e.g.                             | Activated charcoal filtration |
| Treat soil emissions to provide a typical removal efficiency                            | 100 (%)                       |
| Soil treatment measures considered suitable are, e.g.                                   | Sludge incineration           |
| Type of STP                                                                             | onsite                        |
| Estimated subst. removal from wastewater via sewage treatment                           | Approx. 90.35 (%)             |
| Assumed sewage treatment plant flow                                                     | (m <sup>3</sup> /d)           |
| Assumed flow of receiving water (m <sup>3</sup> /d)                                     | (m <sup>3</sup> /d)           |

## 1.5.2. Exposure estimation

Estimated exposure for the environment, scenario 5

Calculation tool used: ECETOC TRA Environment version 2.0

| Compartment                                | PEC / TDI  | Unit                                   | Remark |
|--------------------------------------------|------------|----------------------------------------|--------|
| STP                                        | 0.1929     | mg L <sup>-1</sup>                     |        |
| Freshwater                                 | 0.0134     | mg L <sup>-1</sup>                     |        |
| Freshwater sediment                        | 534.2001   | mg kgwwt <sup>-1</sup>                 |        |
| Soil                                       | 15.9185    | mg kgwwt <sup>-1</sup>                 |        |
| Marine water                               | 0.0014     | mg L <sup>-1</sup>                     |        |
| Marine water sediment                      | 55.2196    | mg kgwwt <sup>-1</sup>                 |        |
| Total daily intake man via the environment | 2.7949E-06 | mg.kgdw <sup>-1</sup> .d <sup>-1</sup> |        |
| Compartment                                | PEC        | Unit                                   | Remark |
| Air (annual average)                       | 0.0001     | mgc.m <sup>-3</sup>                    |        |

## 1.7. Wide dispersive use of cosmetic ingredients

### 1.7.1. Exposure scenario

Environmental assessment in Scenario 7 based on ERC 8a.

#### Description of the ES

|                                                                              |                                                           |
|------------------------------------------------------------------------------|-----------------------------------------------------------|
| <b>Number of the ES</b>                                                      | 7                                                         |
| <b>Title of exposure scenario</b>                                            | <i>Wide dispersive indoor use of cosmetic ingredients</i> |
| <b>Name(s) of contributing consumer scenarios and corresponding AC/PC</b>    | <i>PC 39</i>                                              |
| <b>Name of contributing environmental scenario (1) and corresponding ERC</b> | <i>Wide dispersive use, ERC8a</i>                         |
| <b>Contributing exposure scenario (1) controlling environmental exposure</b> |                                                           |
| <b>Product characteristics</b>                                               |                                                           |
| <b>Frequency and duration of use</b>                                         |                                                           |
| <i>Continuous release.</i>                                                   |                                                           |
| <b>Environment factors and operational conditions</b>                        |                                                           |
| Emission days                                                                | <i>365 (days/year)</i>                                    |
| Local freshwater dilution factor                                             | <i>10 (default)</i>                                       |
| Local marine water dilution factor                                           | <i>100 (default)</i>                                      |
| <i>Indoor / Outdoor use.</i>                                                 |                                                           |
| Release fraction to air from process                                         | <i>1 (default)</i>                                        |
| Release fraction to wastewater from process                                  | <i>1 (default)</i>                                        |
| Release fraction to soil from process                                        | <i>0 (default)</i>                                        |
| <b>Technical conditions and measures</b>                                     |                                                           |
| Type of STP                                                                  | <i>municipal</i>                                          |
| Estimated subst. removal from wastewater via sewage treatment                | <i>Approx. 90.35 (%)</i>                                  |
| Assumed sewage treatment plant flow                                          | <i>(m<sup>3</sup>/d)</i>                                  |
| Assumed flow of receiving water (m <sup>3</sup> /d)                          | <i>(m<sup>3</sup>/d)</i>                                  |

### 1.7.2. Exposure estimation

Estimated exposure for the environment, scenario 7

Calculation tool used: ECETOC TRA Environment version 2010

| Compartment                                | PEC / TDI  | Unit                                   | Remark |
|--------------------------------------------|------------|----------------------------------------|--------|
| STP                                        | 0.0320     | mg L <sup>-1</sup>                     |        |
| Freshwater                                 | 0.0033     | mg L <sup>-1</sup>                     |        |
| Freshwater sediment                        | 133.1592   | mg kgwwt <sup>-1</sup>                 |        |
| Soil                                       | 28.4965    | mg kgwwt <sup>-1</sup>                 |        |
| Marine water                               | 0.0004     | mg L <sup>-1</sup>                     |        |
| Marine water sediment                      | 15.1154    | mg kgwwt <sup>-1</sup>                 |        |
| Total daily intake man via the environment | 2.7949E-06 | mg.kgdw <sup>-1</sup> .d <sup>-1</sup> |        |
| Compartment                                | PEC        | Unit                                   | Remark |
| Air (annual average)                       | 1.7821E-06 | mgc.m <sup>-3</sup>                    |        |

## 1.8. Wide dispersive use of cosmetic ingredients

Environmental assessment in Scenario 8 based on ERC 8d.

### 1.8.1. Exposure scenario

Description of the ES

|                                                                              |                                                            |
|------------------------------------------------------------------------------|------------------------------------------------------------|
| <b>Number of the ES</b>                                                      | 8                                                          |
| <b>Title of exposure scenario</b>                                            | <i>Wide dispersive outdoor use of cosmetic ingredients</i> |
| <b>Name(s) of contributing consumer scenarios and corresponding AC/PC</b>    | <i>PC 39</i>                                               |
| <b>Name of contributing environmental scenario (1) and corresponding ERC</b> | <i>Wide dispersive use, ERC8d</i>                          |
| <b>Contributing exposure scenario (1) controlling environmental exposure</b> |                                                            |
| <b>Product characteristics</b>                                               |                                                            |
| <b>Frequency and duration of use</b>                                         |                                                            |
| <i>Continuous release.</i>                                                   |                                                            |
| <b>Environment factors and operational conditions</b>                        |                                                            |
| Emission days                                                                | <i>365 (days/year) (default)</i>                           |
| Local freshwater dilution factor                                             | <i>10 (default)</i>                                        |
| Local marine water dilution factor                                           | <i>100 (default)</i>                                       |
| <i>Indoor / Outdoor use.</i>                                                 |                                                            |

|                                                               |                          |
|---------------------------------------------------------------|--------------------------|
| Release fraction to air from process                          | <i>1 (default)</i>       |
| Release fraction to wastewater from process                   | <i>1 (default)</i>       |
| Release fraction to soil from process                         | <i>0.2 (default)</i>     |
| <b>Technical conditions and measures</b>                      |                          |
| Type of STP                                                   | <i>municipal</i>         |
| Estimated subst. removal from wastewater via sewage treatment | <i>Approx. 90.35 (%)</i> |
| Assumed sewage treatment plant flow                           | <i>(m<sup>3</sup>/d)</i> |
| Assumed flow of receiving water (m <sup>3</sup> /d)           | <i>(m<sup>3</sup>/d)</i> |

## 1.8.2. Exposure estimation

Estimated exposure for the environment, scenario 8

Calculation tool used: ECETOC TRA Environment version 2.0

| Compartment                                | PEC / TDI  | Unit                                   | Remark |
|--------------------------------------------|------------|----------------------------------------|--------|
| STP                                        | 0.0006     | mg L <sup>-1</sup>                     |        |
| Freshwater                                 | 0.0014     | mg L <sup>-1</sup>                     |        |
| Freshwater sediment                        | 54.88778   | mg kgwwt <sup>-1</sup>                 |        |
| Soil                                       | 16.1035    | mg kgwwt <sup>-1</sup>                 |        |
| Marine water                               | 0.0002     | mg L <sup>-1</sup>                     |        |
| Marine water sediment                      | 7.2873     | mg kgwwt <sup>-1</sup>                 |        |
| Total daily intake man via the environment | 2.7949E-06 | mg.kgdw <sup>-1</sup> .d <sup>-1</sup> |        |
| Compartment                                | PEC        | Unit                                   | Remark |
| Air (annual average)                       | 1.7821E-06 | mgc.m <sup>-3</sup>                    |        |