ATIEL/ATC
Generic Exposure
Scenarios

# Document 7: Environmental GES Values Tables

**This spreadsheet provides you with values to complete the ATIEL-ATC Generic Exposure Scenarios for the Environmental part.**

Version 1.0
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**Purpose**
The purpose of this spreadsheet is to provide you with values to complete the ATIEL-ATC Generic Exposure Scenarios for the Environmental part.

**What is in this spreadsheet**
In this spreadsheet you will find a number of tabs to assist you with completing your task.
In a number of them the values are split according to the ATIEL-ATC Use Groups which have been defined and can be consulted on the ATIEL website.

They are:

| | |
|---|---|
| RDS code selection | This helps you with selecting the appropriate RDS code based on the values for four parameters which you should have received on the SDS from your supplier. |
| Release fraction air | This shows the assumed release fraction of the RDS to air for the different uses. Justication is provided in the ATIEL-ATC SPERCS Factsheets. |
| Release fraction water | This shows the assumed release fraction of the RDS to waste water for the different uses. Justication is provided in the ATIEL-ATC SPERCS Factsheets. |
| STP removal | This shows the assumed removal fraction of the RDS in the default Sewage Treatment Plant for the different uses. |
| Msafe RDS | This shows the Msafe values for an individual RDS at RDS level which represents the amount that can be used safely at site level for the different uses. |
| Msafe Product | This shows the Msafe values for an individual RDS at Product level which represents the amount that can be used safely at site level for the different uses. Note that these values have been based on the treat rate shown in tab "Treat rate". |
| Treat rate | This shows the treat rate used to estimate the Release fraction water and to convert the Msafe values at RDS level to Msafe values at product level. This also describes how to scale Msafe and Release fraction water where a actual treat rate of RDS differs from the default assumption. |
| Validity Limit | This shows the limits of the treat rate percentages for which the GES can be used in principle. |
| EU tonnage | This lists the values for total of EU tonnage used as input to the calculations performed with the ECETOC TRA tool. |
| Emission days | This shows the number of days per year which have been used in the calculations. |

**RDS code assigned on basis of four substance characteristics**

| Four substance parameters to determine RDS code | | | | RDS Code |
|---|---|---|---|---|
| log Kow | VP (pa) | Biodegradability | PNEC FW aq mg/l | |
| <5 | <1 | Readily biodegradable | 0.00001 ≤ - <0.0001 | 1.1 |
| <5 | <1 | Readily biodegradable | 0.0001 ≤ - <0.001 | 1.2 |
| <5 | <1 | Readily biodegradable | 0.001 ≤ - <0.01 | 1.3 |
| TriPP, CAS 115-86-6, EC 204-112-2 | | | | 1.3.1 |
| <5 | <1 | Readily biodegradable | 0.01 ≤ - <0.1 | 1.4 |
| <5 | <1 | Readily biodegradable | 0.1 ≤ - <1.0 | 1.5 |
| | | | | |
| <5 | <1 | Not biodegradable | 0.00001≤ - <0.0001 | 2.1 |
| <5 | <1 | Not biodegradable | 0.0001≤ - <0.001 | 2.2 |
| <5 | <1 | Not biodegradable | 0.001≤ - <0.01 | 2.3 |
| ZDDP, CAS 68457-79-4, EC 270-608-0 | | | | 2.3.1 |
| <5 | <1 | Not biodegradable | 0.01≤ - <0.1 | 2.4 |
| <5 | <1 | Not biodegradable | 0.1≤ - <1.0 | 2.5 |
| | | | | |
| <5 | >1 | Readily biodegradable | 0.00001≤ - <0.0001 | 3.1 |
| <5 | >1 | Readily biodegradable | 0.0001≤ - <0.001 | 3.2 |
| <5 | >1 | Readily biodegradable | 0.001≤ - <0.01 | 3.3 |
| <5 | >1 | Readily biodegradable | 0.01≤ - <0.1 | 3.4 |
| <5 | >1 | Readily biodegradable | 0.1≤ - <1.0 | 3.5 |
| | | | | |
| <5 | >1 | Not biodegradable | 0.00001≤ - <0.0001 | 4.1 |
| <5 | >1 | Not biodegradable | 0.0001≤ - <0.001 | 4.2 |
| <5 | >1 | Not biodegradable | 0.001≤ - <0.01 | 4.3 |
| <5 | >1 | Not biodegradable | 0.01≤ - <0.1 | 4.4 |
| <5 | >1 | Not biodegradable | 0.1≤ - <1.0 | 4.5 |
| | | | | |
| >5 | <1 | Readily biodegradable | 0.00001≤ - <0.0001 | 5.1 |
| >5 | <1 | Readily biodegradable | 0.0001≤ - <0.001 | 5.2 |
| >5 | <1 | Readily biodegradable | 0.001≤ - <0.01 | 5.3 |
| >5 | <1 | Readily biodegradable | 0.01≤ - <0.1 | 5.4 |
| >5 | <1 | Readily biodegradable | 0.1≤ - <1.0 | 5.5 |
| | | | | |
| >5 | <1 | Not biodegradable | 0.00001≤ - <0.0001 | 6.1 |
| >5 | <1 | Not biodegradable | 0.0001≤ - <0.001 | 6.2 |
| >5 | <1 | Not biodegradable | 0.001≤ - <0.01 | 6.3 |
| >5 | <1 | Not biodegradable | 0.01≤ - <0.1 | 6.4 |
| >5 | <1 | Not biodegradable | 0.1≤ - <1.0 | 6.5 |
| | | | | |
| >5 | >1 | Readily biodegradable | 0.00001≤ - <0.0001 | 7.1 |
| >5 | >1 | Readily biodegradable | 0.0001≤ - <0.001 | 7.2 |
| >5 | >1 | Readily biodegradable | 0.001≤ - <0.01 | 7.3 |
| >5 | >1 | Readily biodegradable | 0.01≤ - <0.1 | 7.4 |
| >5 | >1 | Readily biodegradable | 0.1≤ - <1.0 | 7.5 |
| | | | | |
| >5 | >1 | Not biodegradable | 0.00001≤ - <0.0001 | 8.1 |
| >5 | >1 | Not biodegradable | 0.0001≤ - <0.001 | 8.2 |
| >5 | >1 | Not biodegradable | 0.001≤ - <0.01 | 8.3 |
| >5 | >1 | Not biodegradable | 0.01≤ - <0.1 | 8.4 |
| >5 | >1 | Not biodegradable | 0.1≤ - <1.0 | 8.5 |
| | | | | |

RDS code selection

**Release fractions (RF) to three environmental compartments for different use groups: AIR**

> **Notes**
> Note 1: Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.
> Note 2: for industrial processes the RF air has been based on results from an ATC-ATIEL questionnaire, for professional and consumer uses they have been based on A&B tables.

| RDS Code | ATIEL ATC Use group Release Fraction (RF) to air from process (after typical onsite RMMs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ai-add pack | Ai-lubes | Bi | Bp | Bc | Ci | Cp | Cc | Di | Ei | Fi | Fp |
| 1.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 1.2 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 1.3 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | see note 1 above | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 1.3.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 1.4 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 1.5 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 2.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 2.2 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 2.3 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | see note 1 above | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 2.3.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 2.4 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 2.5 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 3.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 3.2 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 3.3 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | see note 1 above | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 3.4 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 3.5 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 4.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 4.2 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 4.3 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | see note 1 above | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 4.4 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 4.5 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 5.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 5.2 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 5.3 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | see note 1 above | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 5.4 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 5.5 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 6.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 6.2 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 6.3 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | see note 1 above | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 6.4 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 6.5 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 1.00E-04 | 5.00E-03 | 5.00E-05 | 1.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 1.00E-04 |
| 7.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 7.2 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 7.3 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | see note 1 above | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 7.4 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 7.5 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 8.1 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 8.2 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 8.3 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | see note 1 above | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 8.4 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |
| 8.5 | 5.00E-07 | 5.00E-05 | 5.00E-05 | 5.00E-04 | 5.00E-03 | 5.00E-05 | 5.00E-04 | 5.00E-03 | | 5.00E-05 | 5.00E-05 | 5.00E-04 |

Release fraction air

**Release fractions (RF) to three environmental compartments for different use groups: WASTE WATER**

> **Notes**
> Note 1: Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.
> Note 2: For industrial processes the RF water has been based on results from an ATC-ATIEL questionnaire for generic information and the assumed treat rate is shown in table "Treat Rate".
> Note 3: For professional and consumer uses in use groups B and C they have been based on A&B tables, for Fp on sector practices.

| RDS Code | ATIEL ATC Use group Release Fraction (RF) to water from process (after typical onsite RMMs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ai-add pack | Ai-lubes | Bi | Bp | Bc | Ci | Cp | Cc | Di | Ei | Fi | Fp |
| 1.1 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 1.2 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 1.3 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | see note 1 above | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 1.3.1 | 1E-10 | 1E-11 | 1E-11 | 5.00E-04 | 5.00E-04 | 1E-11 | 5.00E-04 | 5.00E-04 | | 1.00E-11 | 1.00E-11 | 1.00E-03 |
| 1.4 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 1.5 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 2.1 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 2.2 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 2.3 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | see note 1 above | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 2.3.1 | 1.40E-10 | 1.40E-11 | 1.40E-11 | 5.00E-04 | 5.00E-04 | 1.40E-11 | 5.00E-04 | 5.00E-04 | | 1.40E-11 | 1.40E-11 | 1.00E-03 |
| 2.4 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 2.5 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 3.1 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 3.2 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 3.3 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | see note 1 above | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 3.4 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 3.5 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 4.1 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 4.2 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 4.3 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | see note 1 above | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 4.4 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 4.5 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 5.1 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 5.2 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 5.3 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | see note 1 above | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 5.4 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 5.5 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 6.1 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 6.2 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 6.3 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | see note 1 above | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 6.4 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 6.5 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 7.1 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 7.2 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 7.3 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | see note 1 above | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 7.4 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 7.5 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 8.1 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 8.2 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 8.3 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | see note 1 above | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 8.4 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |
| 8.5 | 2.00E-10 | 2.00E-11 | 2.00E-11 | 5.00E-04 | 5.00E-04 | 2.00E-11 | 5.00E-04 | 5.00E-04 | | 2.00E-11 | 2.00E-11 | 1.00E-03 |

Release fraction water

**Estimated substance removal from wastewater via domestic sewage treatment (%)  - FSTP**

> **Notes**
> Note 1: Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.
> Note 2: the values are the same within each main code e.g. 1.x are the same, 2.x are the same, etc. Please be advised that this does not apply to the clearly defined substances  indicated with codes 1.3.1 and 2.3.1 respectively.

| RDS Code | ATIEL ATC Use group Estimated substance removal from wastewater via domestic sewage treatment (%)  - FSTP | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Ai-add pack | Ai-lubes | Bi | Bp | Bc | Ci | Cp | Cc | Di | Ei | Fi | Fp |
| 1.1 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | 87 | 87 | 87 |
| 1.2 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | 87 | 87 | 87 |
| 1.3 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | see note 1 | 87 | 87 | 87 |
| 1.3.1 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | above | 90 | 90 | 90 |
| 1.4 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | 87 | 87 | 87 |
| 1.5 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | 87 | 87 | 87 |
| 2.1 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | | 0.09 | 0.09 | 0.09 |
| 2.2 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | | 0.09 | 0.09 | 0.09 |
| 2.3 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | see note 1 | 0.09 | 0.09 | 0.09 |
| 2.3.1 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | above | 0.31 | 0.31 | 0.31 |
| 2.4 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | | 0.09 | 0.09 | 0.09 |
| 2.5 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | | 0.09 | 0.09 | 0.09 |
| 3.1 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | 87 | 87 | 87 |
| 3.2 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | 87 | 87 | 87 |
| 3.3 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | see note 1 above | 87 | 87 | 87 |
| 3.4 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | 87 | 87 | 87 |
| 3.5 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | 87 | 87 | 87 |
| 4.1 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | | 0.10 | 0.10 | 0.10 |
| 4.2 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | | 0.10 | 0.10 | 0.10 |
| 4.3 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | see note 1 above | 0.10 | 0.10 | 0.10 |
| 4.4 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | | 0.10 | 0.10 | 0.10 |
| 4.5 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | | 0.10 | 0.10 | 0.10 |
| 5.1 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | | 93 | 93 | 93 |
| 5.2 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | | 93 | 93 | 93 |
| 5.3 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | see note 1 above | 93 | 93 | 93 |
| 5.4 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | | 93 | 93 | 93 |
| 5.5 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | | 93 | 93 | 93 |
| 6.1 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | | 69 | 69 | 69 |
| 6.2 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | | 69 | 69 | 69 |
| 6.3 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | see note 1 above | 69 | 69 | 69 |
| 6.4 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | | 69 | 69 | 69 |
| 6.5 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | | 69 | 69 | 69 |
| 7.1 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | 94 | 94 | 94 |
| 7.2 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | 94 | 94 | 94 |
| 7.3 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | see note 1 above | 94 | 94 | 94 |
| 7.4 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | 94 | 94 | 94 |
| 7.5 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | 94 | 94 | 94 |
| 8.1 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | | 79 | 79 | 79 |
| 8.2 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | | 79 | 79 | 79 |
| 8.3 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | see note 1 above | 79 | 79 | 79 |
| 8.4 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | | 79 | 79 | 79 |
| 8.5 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | | 79 | 79 | 79 |

STP removal

**Maximum allowable site quantity (Msafe values) for different use groups at the substance RDS level**

> **Notes**
> Note 1: Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.

| RDS Code | ATIEL ATC Use group Msafe (kg day-1) | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Ai-add pack | Ai-lubes | Bi | Bp | Bc | Ci | Cp | Cc | Di | Ei | Fi | Fp |
| 1.1 | 13376 | 134 | 39 | 0.4 | 0.2 | 6 | 0.1 | 0.007 | | 5 | 3 | 0.05 |
| 1.2 | 133758 | 1339 | 393 | 4 | 2 | 59 | 0.6 | 0.07 | | 47 | 32 | 0.5 |
| 1.3 | 1337583 | 13388 | 3925 | 38 | 16 | 589 | 6 | 0.7 | see note 1 | 468 | 318 | 5 |
| 1.3.1 | 48529412 | 12012295 | 672097 | 147 | 98 | 97295 | 49 | 7 | above | 61777 | 52466 | 38 |
| 1.4 | 13375833 | 133884 | 39254 | 382 | 159 | 5888 | 57 | 7 | | 4679 | 3184 | 52 |
| 1.5 | 133758330 | 1338839 | 392539 | 3821 | 1587 | 58878 | 567 | 65 | | 46789 | 31839 | 516 |
| 2.1 | 6679 | 67 | 24 | 0.3 | 0.1 | 3 | 0.03 | 0.004 | | 3 | 2 | 0.03 |
| 2.2 | 66785 | 669 | 237 | 3 | 0.8 | 35 | 0.3 | 0.04 | | 28 | 19 | 0.3 |
| 2.3 | 667851 | 6685 | 2371 | 27 | 8 | 347 | 3 | 0.4 | see note 1 | 276 | 187 | 3 |
| 2.3.1 | 2397819 | 24011 | 9626 | 108 | 31 | 1422 | 13 | 2 | above | 1129 | 767 | 11 |
| 2.4 | 6678508 | 66850 | 23709 | 268 | 77 | 3475 | 31 | 4 | | 2758 | 1874 | 27 |
| 2.5 | 66785084 | 668501 | 237089 | 2675 | 773 | 34747 | 310 | 38 | | 27578 | 18737 | 267 |
| 3.1 | 22314 | 223 | 68 | 0.4 | 0.3 | 10 | 0.1 | 0.01 | | 8 | 6 | 0.09 |
| 3.2 | 223137 | 2235 | 677 | 4 | 3 | 103 | 1 | 0.1 | | 82 | 56 | 0.9 |
| 3.3 | 2231366 | 22348 | 6766 | 38 | 27 | 1027 | 10 | 1 | see note 1 | 816 | 556 | 9 |
| 3.4 | 22313660 | 223477 | 67662 | 385 | 272 | 10267 | 98 | 11 | above | 8162 | 5557 | 89 |
| 3.5 | 223136599 | 2234774 | 676615 | 3847 | 2720 | 102669 | 984 | 114 | | 81624 | 55573 | 890 |
| 4.1 | 10437 | 105 | 28 | 0.3 | 0.1 | 4 | 0.04 | 0.004 | | 3 | 2 | 0.03 |
| 4.2 | 104367 | 1055 | 277 | 3 | 1 | 40 | 0.4 | 0.04 | | 32 | 22 | 0.3 |
| 4.3 | 1043674 | 10547 | 2775 | 28 | 9 | 402 | 4 | 0.4 | see note 1 | 319 | 217 | 3 |
| 4.4 | 10436736 | 105467 | 27750 | 280 | 87 | 4017 | 35 | 4 | above | 3188 | 2166 | 30 |
| 4.5 | 104367360 | 1054670 | 277495 | 2801 | 867 | 40169 | 354 | 44 | | 31881 | 21661 | 302 |
| 5.1 | 321779 | 4672 | 1230 | 0.4 | 0.4 | 178 | 0.3 | 0.1 | | 141 | 96 | 0.2 |
| 5.2 | 3217789 | 46720 | 12297 | 4 | 4 | 1780 | 3 | 1 | | 1413 | 960 | 2 |
| 5.3 | 32177893 | 467202 | 122966 | 41 | 38 | 17802 | 33 | 13 | see note 1 | 14129 | 9600 | 18 |
| 5.4 | 321778932 | 4672020 | 1229661 | 409 | 381 | 178018 | 333 | 133 | above | 141290 | 95996 | 183 |
| 5.5 | 3217789316 | 46720196 | 12296609 | 4090 | 3810 | 1780184 | 3331 | 1328 | | 1412897 | 959959 | 1826 |
| 6.1 | 54670 | 577 | 152 | 0.4 | 0.2 | 22 | 0.1 | 0.02 | | 17 | 12 | 0.1 |
| 6.2 | 546705 | 5772 | 1519 | 4 | 2 | 220 | 1 | 0.2 | | 174 | 119 | 1 |
| 6.3 | 5467047 | 57723 | 15188 | 38 | 25 | 2199 | 14 | 2 | see note 1 | 1745 | 1186 | 10 |
| 6.4 | 54670469 | 577231 | 151881 | 382 | 246 | 21986 | 140 | 23 | above | 17450 | 11856 | 100 |
| 6.5 | 546704686 | 5772309 | 1518810 | 3822 | 2456 | 219859 | 1403 | 228 | | 174497 | 118557 | 1003 |
| 7.1 | 585205 | 13487 | 3552 | 0.4 | 0.4 | 514 | 0.4 | 0.2 | | 408 | 277 | 0.2 |
| 7.2 | 5852054 | 134865 | 35518 | 4 | 4 | 5143 | 4 | 2 | | 4082 | 2773 | 2 |
| 7.3 | 58520537 | 1348654 | 355185 | 41 | 40 | 51430 | 38 | 24 | see note 1 | 40819 | 27734 | 20 |
| 7.4 | 585205367 | 13486538 | 3551849 | 412 | 401 | 514301 | 381 | 239 | above | 408194 | 277339 | 198 |
| 7.5 | 5852053671 | 134865377 | 35518491 | 4117 | 4014 | 5143011 | 3814 | 2387 | | 4081936 | 2773395 | 1976 |
| 8.1 | 166059 | 1978 | 521 | 0.4 | 0.3 | 75 | 0.3 | 0.1 | | 60 | 41 | 0.2 |
| 8.2 | 1660587 | 19784 | 5206 | 4 | 3 | 754 | 3 | 0.7 | | 598 | 406 | 2 |
| 8.3 | 16605869 | 197838 | 52060 | 40 | 34 | 7536 | 26 | 7 | see note 1 | 5981 | 4064 | 16 |
| 8.4 | 166058691 | 1978378 | 520603 | 404 | 345 | 75363 | 264 | 69 | above | 59814 | 40639 | 158 |
| 8.5 | 1660586910 | 19783781 | 5206028 | 4036 | 3446 | 753634 | 2636 | 690 | | 598143 | 406393 | 1578 |

**Msafe values for generic products for different use groups at the product level using a treat rate of 2% except for Ai-add pack 20%; for specific substances see tab "Treat rate"**

**Important:**
If your treat rate is significantly different from that assumed above, then you can scale Msafe (and Release fraction to water) accordingly. For more details see tab Treat rate.

**Notes**
Note 1: Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.

| RDS Code | ATIEL ATC Use group Msafe (kg day-1) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ai-add pack | Ai-lubes | Bi | Bp | Bc | Ci | Cp | Cc | Di | Ei | Fi | Fp |
| 1.1 | 66879 | 6694 | 1963 | 19 | 8 | 294.4 | 3 | 0.3 | | 234 | 159 | 3 |
| 1.2 | 668792 | 66942 | 19627 | 191 | 79 | 2944 | 28 | 3 | | 2339 | 1592 | 26 |
| 1.3 | 6687917 | 669420 | 196269 | 1911 | 793 | 29439 | 283 | 33 | see note 1 above | 23395 | 15920 | 258 |
| 1.3.1 | 485294116 | 1201229490 | 67209667 | 29351 | 9835 | 9729484 | 4873 | 3453 | | 3088840 | 5246574 | 3768 |
| 1.4 | 66879165 | 6694195 | 1962694 | 19107 | 7934 | 294390 | 2835 | 325 | | 233946 | 159197 | 2578 |
| 1.5 | 668791651 | 66941950 | 19626944 | 191071 | 79341 | 2943899 | 28348 | 3253 | | 2339463 | 1591968 | 25781 |
| 2.1 | 33393 | 3343 | 1185 | 13 | 4 | 174 | 2 | 0.2 | | 138 | 94 | 1 |
| 2.2 | 333925 | 33425 | 11854 | 134 | 39 | 1737 | 15 | 2 | | 1379 | 937 | 13 |
| 2.3 | 3339254 | 334250 | 118544 | 1338 | 386 | 17374 | 155 | 19 | see note 1 above | 13789 | 9369 | 133 |
| 2.3.1 | 17127276 | 1715038 | 687548 | 7703 | 2249 | 101602 | 904 | 111 | | 80639 | 54788 | 778 |
| 2.4 | 33392542 | 3342503 | 1185444 | 13377 | 3863 | 173737 | 1549 | 189 | | 137891 | 93687 | 1335 |
| 2.5 | 333925418 | 33425031 | 11854444 | 133772 | 38625 | 1737373 | 15494 | 1892 | | 1378914 | 936866 | 13345 |
| 3.1 | 111568 | 11174 | 3383 | 19 | 14 | 513 | 5 | 1 | | 408 | 278 | 4 |
| 3.2 | 1115683 | 111739 | 33831 | 192 | 136 | 5133 | 49 | 6 | see note 1 above | 4081 | 2779 | 44 |
| 3.3 | 11156830 | 1117387 | 338308 | 1923 | 1360 | 51335 | 492 | 57 | | 40812 | 27786 | 445 |
| 3.4 | 111568299 | 11173869 | 3383076 | 19234 | 13598 | 513347 | 4919 | 568 | | 408120 | 277864 | 4448 |
| 3.5 | 1115682994 | 111738691 | 33830760 | 192339 | 135975 | 5133469 | 49191 | 5680 | | 4081196 | 2778640 | 44483 |
| 4.1 | 52184 | 5273 | 1387 | 14 | 4 | 201 | 2 | 0 | | 159 | 108 | 2 |
| 4.2 | 521837 | 52733 | 13875 | 140 | 43 | 2008 | 18 | 2 | see note 1 above | 1594 | 1083 | 15 |
| 4.3 | 5218368 | 527335 | 138748 | 1400 | 433 | 20085 | 177 | 22 | | 15941 | 10830 | 151 |
| 4.4 | 52183680 | 5273349 | 1387477 | 14003 | 4335 | 200845 | 1770 | 218 | | 159407 | 108304 | 1511 |
| 4.5 | 521836801 | 52733489 | 13874770 | 140030 | 43346 | 2008455 | 17697 | 2184 | | 1594066 | 1083045 | 15113 |
| 5.1 | 1608895 | 233601 | 61483 | 20 | 19 | 8901 | 17 | 7 | | 7064 | 4800 | 9 |
| 5.2 | 16088947 | 2336010 | 614830 | 205 | 191 | 89009 | 167 | 66 | see note 1 above | 70645 | 47998 | 91 |
| 5.3 | 160889466 | 23360098 | 6148305 | 2045 | 1905 | 890092 | 1666 | 664 | | 706449 | 479979 | 913 |
| 5.4 | 1608894658 | 233600979 | 61483046 | 20451 | 19051 | 8900918 | 16657 | 6641 | | 7064486 | 4799793 | 9132 |
| 5.5 | 16088946580 | 2336009793 | 614830460 | 204509 | 190505 | 89009184 | 166566 | 66407 | | 70644862 | 47997927 | 91322 |
| 6.1 | 273352 | 28862 | 7594 | 19 | 12 | 1099 | 7 | 1 | | 872 | 593 | 5 |
| 6.2 | 2733523 | 288615 | 75940 | 191 | 123 | 10993 | 70 | 11 | see note 1 above | 8725 | 5928 | 50 |
| 6.3 | 27335234 | 2886155 | 759405 | 1911 | 1228 | 109929 | 702 | 114 | | 87249 | 59279 | 501 |
| 6.4 | 273352343 | 28861546 | 7594049 | 19111 | 12281 | 1099295 | 7017 | 1142 | | 872486 | 592787 | 5014 |
| 6.5 | 2733523431 | 288615463 | 75940491 | 191107 | 122805 | 10992946 | 70167 | 11419 | | 8724860 | 5927871 | 50138 |
| 7.1 | 2926027 | 674327 | 177592 | 21 | 20 | 25715 | 19 | 12 | | 20410 | 13867 | 10 |
| 7.2 | 29260268 | 6743269 | 1775925 | 206 | 201 | 257151 | 191 | 119 | see note 1 above | 204097 | 138670 | 99 |
| 7.3 | 292602684 | 67432689 | 17759246 | 2058 | 2007 | 2571506 | 1907 | 1194 | | 2040968 | 1386697 | 988 |
| 7.4 | 2926026835 | 674326886 | 177592456 | 20584 | 20070 | 25715057 | 19070 | 11936 | | 20409679 | 13866973 | 9880 |
| 7.5 | 29260268353 | 6743268861 | 1775924559 | 205839 | 200699 | 257150570 | 190705 | 119361 | | 204096787 | 138669729 | 98799 |
| 8.1 | 830293 | 98919 | 26030 | 20 | 17 | 3768 | 13 | 3 | | 2991 | 2032 | 8 |
| 8.2 | 8302935 | 989189 | 260301 | 202 | 172 | 37682 | 132 | 35 | see note 1 above | 29907 | 20320 | 79 |
| 8.3 | 83029346 | 9891890 | 2603014 | 2018 | 1723 | 376817 | 1318 | 345 | | 299072 | 203196 | 789 |
| 8.4 | 830293455 | 98918904 | 26030141 | 20179 | 17228 | 3768170 | 13181 | 3451 | | 2990717 | 2031965 | 7888 |
| 8.5 | 8302934552 | 989189038 | 260301410 | 201793 | 172277 | 37681698 | 131809 | 34511 | | 29907171 | 20319646 | 78885 |

**Treat rate**

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**Warning**
If your treat rate is significantly different from that assumed below, then you can scale Msafe (and Release fraction to water) accordingly, providing you stay within the validity limit. For information on validity limits of asssumed treat rate, see tab "Validity Limit"

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**Scaling Msafe at Product Level**
For use Ai-add pack (where 20% is the default assumption): Scaled Msafe product = Msafe Product * (20%/actual concentration (%))
For uses Ai-lubes through to Fp (where 2% is the default assumption): Scaled Msafe product = Msafe Product * (2%/actual concentration (%))
For use Ai-add pack (where 20% is the default assumption): Scaled Release fraction water = Release Fraction * (actual concentration (%) / 20%)
For uses Ai-lubes through to Fp (where 2% is the default assumption): Scaled Release fraction water = Release Fraction * (actual concentration (%) / 2%)

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**Notes**
Note 1: Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.

| RDS Code | ATIEL ATC Use group  assumed Treat rate | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ai-add pack | Ai-lubes | Bi | Bp | Bc | Ci | Cp | Cc | Di | Ei | Fi | Fp |
| 1.1 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 1.2 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 1.3 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | see note 1 | 2.00% | 2.00% | 2.00% |
| 1.3.1 | 10.00% | 1.00% | 1.00% | 0.50% | 1.00% | 1.00% | 1.00% | 0.20% | above | 2.00% | 2.00% | 2.00% |
| 1.4 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 1.5 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| | | | | | | | | | | | | |
| 2.1 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 2.2 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 2.3 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | see note 1 | 2.00% | 2.00% | 2.00% |
| 2.3.1 | 14.00% | 1.40% | 1.40% | 1.40% | 1.40% | 1.40% | 1.40% | 1.40% | above | 1.40% | 1.40% | 1.40% |
| 2.4 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 2.5 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| | | | | | | | | | | | | |
| 3.1 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 3.2 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | see note 1 | 2.00% | 2.00% | 2.00% |
| 3.3 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | above | 2.00% | 2.00% | 2.00% |
| 3.4 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 3.5 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| | | | | | | | | | | | | |
| 4.1 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 4.2 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | see note 1 | 2.00% | 2.00% | 2.00% |
| 4.3 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | above | 2.00% | 2.00% | 2.00% |
| 4.4 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 4.5 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| | | | | | | | | | | | | |
| 5.1 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 5.2 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | see note 1 | 2.00% | 2.00% | 2.00% |
| 5.3 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | above | 2.00% | 2.00% | 2.00% |
| 5.4 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 5.5 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| | | | | | | | | | | | | |
| 6.1 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 6.2 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | see note 1 | 2.00% | 2.00% | 2.00% |
| 6.3 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | above | 2.00% | 2.00% | 2.00% |
| 6.4 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 6.5 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| | | | | | | | | | | | | |
| 7.1 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 7.2 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | see note 1 | 2.00% | 2.00% | 2.00% |
| 7.3 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | above | 2.00% | 2.00% | 2.00% |
| 7.4 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 7.5 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| | | | | | | | | | | | | |
| 8.1 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 8.2 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | see note 1 | 2.00% | 2.00% | 2.00% |
| 8.3 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | above | 2.00% | 2.00% | 2.00% |
| 8.4 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |
| 8.5 | 20.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | | 2.00% | 2.00% | 2.00% |

**Validity Limit**

In the application of the GES the treat rate may not be the same as the default ones which have been used for the risk assessment. However the GES can still be applied to higher treat rates providing they do not exceed the upper limit. The upper limits are:-
* 70% of the RDS in the additive package
* 20% of the RDS in the finished lubricant.

**Amounts used (tonnes year$^{-1}$) at EU level for different use groups at the substance level**

> **Notes**
> Note 1: Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.

| RDS Code | EU tonnage (tonnes per year) [ATE09] | | | | | | | | | | | |
| | ATIEL ATC Use group | | | | | | | | | | | |
| | Ai-add pac | Ai-lubes | Bi | Bp | Bc | Ci | Cp | Cc | Di | Ei | Fi | Fp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | 1.00E+03 | 1.00E+03 | 2.63E+02 | 5.39E+02 | 6.38E+01 | 3.81E+01 | 2.24E+01 | 2.55E+00 | | 3.02E+01 | 2.05E+01 | 2.05E+01 |
| 1.2 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 1.3 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | see note 1 above | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 1.3.1 | 7.50E+02 | 7.50E+02 | 1.99E+02 | 4.06E+02 | 4.82E+01 | 2.87E+01 | 1.69E+01 | 1.92E+00 | | 1.82E+01 | 1.55E+01 | 1.55E+01 |
| 1.4 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 1.5 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 2.1 | 1.00E+03 | 1.00E+03 | 2.63E+02 | 5.39E+02 | 6.38E+01 | 3.81E+01 | 2.24E+01 | 2.55E+00 | | 3.02E+01 | 2.05E+01 | 2.05E+01 |
| 2.2 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 2.3 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | see note 1 above | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 2.3.1 | 8.59E+03 | 8.59E+03 | 2.26E+03 | 4.63E+03 | 5.49E+02 | 3.27E+02 | 1.92E+02 | 2.19E+01 | | 2.60E+02 | 1.76E+02 | 1.76E+02 |
| 2.4 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 2.5 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 3.1 | 1.00E+03 | 1.00E+03 | 2.63E+02 | 5.39E+02 | 6.38E+01 | 3.81E+01 | 2.24E+01 | 2.55E+00 | | 3.02E+01 | 2.05E+01 | 2.05E+01 |
| 3.2 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 3.3 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | see note 1 above | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 3.4 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 3.5 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 4.1 | 1.00E+03 | 1.00E+03 | 2.63E+02 | 5.39E+02 | 6.38E+01 | 3.81E+01 | 2.24E+01 | 2.55E+00 | | 3.02E+01 | 2.05E+01 | 2.05E+01 |
| 4.2 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 4.3 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | see note 1 above | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 4.4 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 4.5 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 5.1 | 1.00E+03 | 1.00E+03 | 2.63E+02 | 5.39E+02 | 6.38E+01 | 3.81E+01 | 2.24E+01 | 2.55E+00 | | 3.02E+01 | 2.05E+01 | 2.05E+01 |
| 5.2 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 5.3 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | see note 1 above | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 5.4 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 5.5 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 6.1 | 1.00E+03 | 1.00E+03 | 2.63E+02 | 5.39E+02 | 6.38E+01 | 3.81E+01 | 2.24E+01 | 2.55E+00 | | 3.02E+01 | 2.05E+01 | 2.05E+01 |
| 6.2 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 6.3 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | see note 1 above | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 6.4 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 6.5 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 7.1 | 1.00E+03 | 1.00E+03 | 2.63E+02 | 5.39E+02 | 6.38E+01 | 3.81E+01 | 2.24E+01 | 2.55E+00 | | 3.02E+01 | 2.05E+01 | 2.05E+01 |
| 7.2 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 7.3 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | see note 1 above | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 7.4 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 7.5 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 8.1 | 1.00E+03 | 1.00E+03 | 2.63E+02 | 5.39E+02 | 6.38E+01 | 3.81E+01 | 2.24E+01 | 2.55E+00 | | 3.02E+01 | 2.05E+01 | 2.05E+01 |
| 8.2 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 8.3 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | see note 1 above | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 8.4 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |
| 8.5 | 1.00E+04 | 1.00E+04 | 2.63E+03 | 5.39E+03 | 6.38E+02 | 3.81E+02 | 2.24E+02 | 2.55E+01 | | 3.02E+02 | 2.05E+02 | 2.05E+02 |

REF EU tonnage

**Frequency and duration of use (days year$^{-1}$)**

<div style="border:1px solid #888; padding:8px">

**Notes**

Note 1: Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.

</div>

| RDS Code | Emission days (days/year) [FD4] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ATIEL ATC Use group | | | | | | | | | | | |
| | Ai-add pac | Ai-lubes | Bi | Bp | Bc | Ci | Cp | Cc | Di | Ei | Fi | Fp |
| 1.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 1.2 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 1.3 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | see note | 300.00 | 300.00 | 365.00 |
| 1.3.1 | 300.00 | 300.00 | 20.00 | 365.00 | 365.00 | 20.00 | 365.00 | 365.00 | 1 above | 20.00 | 20.00 | 365.00 |
| 1.4 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 1.5 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| | | | | | | | | | | | | |
| 2.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 2.2 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 2.3 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | see note | 300.00 | 300.00 | 365.00 |
| 2.3.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | 1 above | 300.00 | 300.00 | 365.00 |
| 2.4 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 2.5 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| | | | | | | | | | | | | |
| 3.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 3.2 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | see note | 300.00 | 300.00 | 365.00 |
| 3.3 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | 1 above | 300.00 | 300.00 | 365.00 |
| 3.4 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 3.5 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| | | | | | | | | | | | | |
| 4.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 4.2 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | see note | 300.00 | 300.00 | 365.00 |
| 4.3 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | 1 above | 300.00 | 300.00 | 365.00 |
| 4.4 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 4.5 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| | | | | | | | | | | | | |
| 5.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 5.2 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | see note | 300.00 | 300.00 | 365.00 |
| 5.3 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | 1 above | 300.00 | 300.00 | 365.00 |
| 5.4 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 5.5 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| | | | | | | | | | | | | |
| 6.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 6.2 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | see note | 300.00 | 300.00 | 365.00 |
| 6.3 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | 1 above | 300.00 | 300.00 | 365.00 |
| 6.4 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 6.5 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| | | | | | | | | | | | | |
| 7.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 7.2 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | see note | 300.00 | 300.00 | 365.00 |
| 7.3 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | 1 above | 300.00 | 300.00 | 365.00 |
| 7.4 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 7.5 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| | | | | | | | | | | | | |
| 8.1 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 8.2 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | see note | 300.00 | 300.00 | 365.00 |
| 8.3 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | 1 above | 300.00 | 300.00 | 365.00 |
| 8.4 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |
| 8.5 | 300.00 | 300.00 | 300.00 | 365.00 | 365.00 | 300.00 | 365.00 | 365.00 | | 300.00 | 300.00 | 365.00 |

REF Emission days