**ΣΕΝΑΡΙΟ ΕΚΘΕΣΗΣ (ΣΕ) ΠΡΟΣ ΚΟΙΝΟΠΟΙΗΣΗ**

**Ονομασία ουσίας:** calcium chloride

**αριθμός ΕΚ:** 233-140-8

**Αριθμός CAS:** 10043-52-4

**Αριθμός Καταχώρισης:**

**Ημερομηνία δημιουργίας/αναθεώρησης:** 16/04/2020

**Συντάκτης:** Apeiron-Team NV

**Πίνακας Περιεχομένων**

[1. ES 1: Παρασκευή](#N10033) [3](#N10033)

[2. ES 2: Τυποποίηση ή επανασυσκευασία](#N10449) [7](#N10449)

[3. ES 3: Χρήσεις σε βιομηχανικές εγκαταστάσεις; Διάφοροι τομείς (SU 1, SU 2a, SU 2b, SU 4, SU 5, SU 6b, SU 8, SU 9, SU 11, SU 12, SU 13, SU 14, SU 15, SU 16, SU 17)](#N1097D) [12](#N1097D)

[4. ES 4: Ευρεία χρήση από επαγγελματίες; Διάφοροι τομείς (SU 0, SU 1, SU 13, SU 19, SU 20)](#N11497) [22](#N11497)

[5. ES 5: Ευρεία χρήση από επαγγελματίες; Διάφοροι τομείς (SU 0, SU 1, SU 5, SU 13, SU 19, SU 20)](#N11A79) [29](#N11A79)

[6. ES 6: Χρήση από τους καταναλωτές; Διάφορα προϊόντα (PC 0, PC 2, PC 4, PC 12, PC 16, PC 27, PC 35, PC 37)](#N120A3) [36](#N120A3)

**Κεφάλαιο 1. ES 1: Παρασκευή**

**1.1. Ενότητα τίτλων**

Ονομασία ES: Manufacture

|  |  |
| --- | --- |
| **Περιβάλλον** |  |
| 1: *Manufacturing of substances* | ERC 1 |
| **Εργαζόμενος** |  |
| 2: *Chemical production in closed process without likelihood of exposure or in containment conditions or processes with equivalent containment condition* | PROC 1 |
| 3: *Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment condition* | PROC 2 |
| 4: *Manufacture in closed batch processes with occasional controlled exposure or processes with equivalent containment condition* | PROC 3 |
| 5: Chemical production where opportunity for exposure arises | PROC 4 |
| 6: *Transfer of a substance or mixture during process sampling at dedicated facilities* | PROC 8b, PROC 26 |
| 7: *Transfer of a substance or mixture during process sampling at non-dedicated facilities* | PROC 8a, PROC 26 |
| 8: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* | PROC 9, PROC 26 |
| 9: Tabletting, compression, extrusion, pelettisation, granulation | PROC 14 |
| 10: Use as laboratory reagent | PROC 15, PROC 26 |
| 11: *Transfer of substance or mixture (charging/discharging) at non dedicated-facilities* | PROC 8a, PROC 26 |
| 12: *Transfer of substance or mixture (charging/discharging) at dedicated-facilities* | PROC 8b, PROC 26 |
| 13: *Equipment cleaning and maintenance at non-dedicated facility* | PROC 8a, PROC 28 |
| 14: Handling of solid inorganic substances at ambient temperature | PROC 26 |
| 15: *Manual maintenance (cleaning and repair) of machinery at non-dedicated facility* | PROC 28 |

**1.2. Συνθήκες χρήσης που επηρεάζουν την έκθεση**

**1.2.1. Έλεγχος της έκθεσης εργαζομένων**

**Συνθήκες χρήσης που ισχύουν για όλα τα συμβάλλοντα σενάρια**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα (ή ποσότητα που περιέχεται σε αντικείμενα), συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 8 h/day |
| **Τεχνικές και οργανωτικές συνθήκες και μέτρα** |
| Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). |
| Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision. |
| **Συνθήκες και μέτρα σχετικά με την ατομική προστασία, την υγιεινή και την αξιολόγηση της υγείας** |
| Use suitable eye protection. |
| Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των εργαζομένων** |
| Indoor use |
| Assumes process temperature up to 20 °C |

**1.3. Εκτίμηση της έκθεσης (σε ουσία) και παραπομπή στην πηγή της**

**1.3.1. Έκθεση εργαζομένων: *Chemical production in closed process without likelihood of exposure or in containment conditions or processes with equivalent containment condition* (PROC 1)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.774 mg/m³ (Δεδομένα μέτρησης) | 0.355 |
| Διά της εισπνοής, τοπική, οξεία | 1.774 mg/m³ (Δεδομένα μέτρησης) | 0.177 |

**1.3.2. Έκθεση εργαζομένων: *Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment condition* (PROC 2)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.774 mg/m³ (Δεδομένα μέτρησης) | 0.355 |
| Διά της εισπνοής, τοπική, οξεία | 1.774 mg/m³ (Δεδομένα μέτρησης) | 0.177 |

**1.3.3. Έκθεση εργαζομένων: *Manufacture in closed batch processes with occasional controlled exposure or processes with equivalent containment condition* (PROC 3)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.774 mg/m³ (Δεδομένα μέτρησης) | 0.355 |
| Διά της εισπνοής, τοπική, οξεία | 1.774 mg/m³ (Δεδομένα μέτρησης) | 0.177 |

**1.3.4. Έκθεση εργαζομένων: Chemical production where opportunity for exposure arises (PROC 4)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.881 mg/m³ (Δεδομένα μέτρησης) | 0.376 |
| Διά της εισπνοής, τοπική, οξεία | 1.881 mg/m³ (Δεδομένα μέτρησης) | 0.188 |

**1.3.5. Έκθεση εργαζομένων: *Transfer of a substance or mixture during process sampling at dedicated facilities* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.3.6. Έκθεση εργαζομένων: *Transfer of a substance or mixture during process sampling at non-dedicated facilities* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.3.7. Έκθεση εργαζομένων: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* (PROC 9, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.3.8. Έκθεση εργαζομένων: Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.3.9. Έκθεση εργαζομένων: Use as laboratory reagent (PROC 15, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.774 mg/m³ (Δεδομένα μέτρησης) | 0.355 |
| Διά της εισπνοής, τοπική, οξεία | 1.774 mg/m³ (Δεδομένα μέτρησης) | 0.177 |

**1.3.10. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at non dedicated-facilities* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.3.11. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at dedicated-facilities* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.3.12. Έκθεση εργαζομένων: *Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a, PROC 28)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.3.13. Έκθεση εργαζομένων: Handling of solid inorganic substances at ambient temperature (PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.3.14. Έκθεση εργαζομένων: *Manual maintenance (cleaning and repair) of machinery at non-dedicated facility* (PROC 28)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.548 |
| Διά της εισπνοής, τοπική, οξεία | 2.742 mg/m³ (Δεδομένα μέτρησης) | 0.274 |

**1.4. Καθοδήγηση προς τους μεταγενέστερους χρήστες σχετικά με την αξιολόγηση του κατά πόσον δραστηριοποιούνται εντός των ορίων που τίθενται στο ΣΕ**

**Κεφάλαιο 2. ES 2: Τυποποίηση ή επανασυσκευασία**

**2.1. Ενότητα τίτλων**

Ονομασία ES: Formulation or re-packing; Distribution of substance

|  |  |
| --- | --- |
| **Περιβάλλον** |  |
| 1: Formulation into mixture | ERC 2 |
| **Εργαζόμενος** |  |
| 2: *Chemical production in closed process without likelihood of exposure or in containment conditions.* | PROC 1 |
| 3: *Chemical production in closed continuous process with occasional controlled exposure.* | PROC 2 |
| 4: *Formulation in closed batch processes with occasional controlled exposure.* | PROC 3 |
| 5: *Chemical production where opportunity for exposure arises* | PROC 4 |
| 6: Mixing or blending in batch processes | PROC 5 |
| 7: *Transfer of a substance or mixture during process sampling at dedicated facilities* | PROC 8b, PROC 26 |
| 8: *Transfer of a substance or mixture during process sampling at non-dedicated facilities* | PROC 8a, PROC 26 |
| 9: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* | PROC 9, PROC 26 |
| 10: Use as laboratory reagent | PROC 15, PROC 26 |
| 11: Tabletting, compression, extrusion, pelettisation, granulation | PROC 14 |
| 12: *Transfer of substance or mixture (charging/discharging) at non dedicated-facilities* | PROC 8a, PROC 26 |
| 13: *Transfer of substance or mixture (charging/discharging) at dedicated-facilities* | PROC 8b, PROC 26 |
| 14: *Equipment cleaning and maintenance at non-dedicated facility* | PROC 8a, PROC 28 |
| 15: Manual maintenance (cleaning and repair) of machinery | PROC 28 |

**2.2. Συνθήκες χρήσης που επηρεάζουν την έκθεση**

**2.2.1. Έλεγχος της έκθεσης εργαζομένων**

**Συνθήκες χρήσης που ισχύουν για όλα τα συμβάλλοντα σενάρια**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Τεχνικές και οργανωτικές συνθήκες και μέτρα** |
| Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision. |
| **Συνθήκες και μέτρα σχετικά με την ατομική προστασία, την υγιεινή και την αξιολόγηση της υγείας** |
| Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| *Use suitable eye protection.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των εργαζομένων** |
| Indoor use |
| Assumes process temperature up to 20 °C |

​

**Ειδικές συνθήκες χρήσης ανά συμβάλλον σενάριο**

|  |  |
| --- | --- |
| **Συμβάλλον σενάριο** | **Χρειάζονται ειδικά μέτρα** |
| ***Chemical production in closed process without likelihood of exposure or in containment conditions.* (PROC 1)** | Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour). |
| ***Chemical production in closed continuous process with occasional controlled exposure.* (PROC 2)** | Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour). |
| ***Formulation in closed batch processes with occasional controlled exposure.* (PROC 3)** | Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour). |
| ***Chemical production where opportunity for exposure arises* (PROC 4)** | Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.* |
| **Mixing or blending in batch processes (PROC 5)** | Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.* |
| ***Transfer of a substance or mixture during process sampling at dedicated facilities* (PROC 8b, PROC 26)** | Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). |
| ***Transfer of a substance or mixture during process sampling at non-dedicated facilities* (PROC 8a, PROC 26)** | Covers use up to 1 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.* |
| ***Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* (PROC 9, PROC 26)** | Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.* |
| **Use as laboratory reagent (PROC 15, PROC 26)** | Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour). |
| **Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)** | Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour). |
| ***Transfer of substance or mixture (charging/discharging) at non dedicated-facilities* (PROC 8a, PROC 26)** | Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.* |
| ***Transfer of substance or mixture (charging/discharging) at dedicated-facilities* (PROC 8b, PROC 26)** | Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). |
| ***Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a, PROC 28)** | Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  *Handle substance within a closed system [ES47] Drain down and flush system prior to equipment break-in or maintenance [E55] Transfer via enclosed lines [E52]*  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.* |
| **Manual maintenance (cleaning and repair) of machinery (PROC 28)** | Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  *Handle substance within a closed system [ES47] Drain down and flush system prior to equipment break-in or maintenance [E55] Transfer via enclosed lines [E52]*  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.* |

**2.3. Εκτίμηση της έκθεσης (σε ουσία) και παραπομπή στην πηγή της**

**2.3.1. Έκθεση εργαζομένων: *Chemical production in closed process without likelihood of exposure or in containment conditions.* (PROC 1)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.01 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.04 mg/m³ (TRA Workers 3.0) | < 0.01 |

**2.3.2. Έκθεση εργαζομένων: *Chemical production in closed continuous process with occasional controlled exposure.* (PROC 2)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**2.3.3. Έκθεση εργαζομένων: *Formulation in closed batch processes with occasional controlled exposure.* (PROC 3)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**2.3.4. Έκθεση εργαζομένων: *Chemical production where opportunity for exposure arises* (PROC 4)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**2.3.5. Έκθεση εργαζομένων: Mixing or blending in batch processes (PROC 5)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**2.3.6. Έκθεση εργαζομένων: *Transfer of a substance or mixture during process sampling at dedicated facilities* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**2.3.7. Έκθεση εργαζομένων: *Transfer of a substance or mixture during process sampling at non-dedicated facilities* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**2.3.8. Έκθεση εργαζομένων: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* (PROC 9, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**2.3.9. Έκθεση εργαζομένων: Use as laboratory reagent (PROC 15, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**2.3.10. Έκθεση εργαζομένων: Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**2.3.11. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at non dedicated-facilities* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**2.3.12. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at dedicated-facilities* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**2.3.13. Έκθεση εργαζομένων: *Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a, PROC 28)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**2.3.14. Έκθεση εργαζομένων: Manual maintenance (cleaning and repair) of machinery (PROC 28)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (PROC 8a estimate used to cover PROC 28) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (PROC 8a estimate used to cover PROC 28) | 0.2 |

**2.4. Καθοδήγηση προς τους μεταγενέστερους χρήστες σχετικά με την αξιολόγηση του κατά πόσον δραστηριοποιούνται εντός των ορίων που τίθενται στο ΣΕ**

**Κεφάλαιο 3. ES 3: Χρήσεις σε βιομηχανικές εγκαταστάσεις; Διάφοροι τομείς (SU 1, SU 2a, SU 2b, SU 4, SU 5, SU 6b, SU 8, SU 9, SU 11, SU 12, SU 13, SU 14, SU 15, SU 16, SU 17)**

**3.1. Ενότητα τίτλων**

Ονομασία ES: *Use at industrial site (e.g. Industrial Indoor use as Chemical Intermediate and Process aid, Industrial Outdoor use)*

Τομέας χρήσης: Γεωργία, δασοκομία, αλιεία (SU 1), Ορυχεία, (χωρίς τους εξωχώριους κλάδους) (SU 2a), Εξωχώριοι κλάδοι (SU 2b), Βιομηχανία τροφίμων (SU 4), Παραγωγή κλωστοϋφαντουργικών υλών, δέρματος, γούνας (SU 5), Παραγωγή χαρτοπολτού, κατασκευή χαρτιού και προϊόντων από χαρτί (SU 6b), Μεταποίηση χύμα χημικών προϊόντων, μεγάλης κλίμακας (συμπεριλαμβανομένων των προϊόντων πετρελαίου) (SU 8), Μεταποίηση χημικών ουσιών υψηλής ποιότητας (SU 9), Κατασκευή προϊόντων από ελαστικό (καουτσούκ) (SU 11), Παραγωγή προϊόντων από πλαστικό, συμπεριλαμβανομένης της σύνθεσης και της μετατροπής (SU 12), Μεταποίηση άλλων μη μεταλλικών ορυκτών προϊόντων, π.χ. γύψου, τσιμέντου (SU 13), Μεταποίηση βασικών μετάλλων, συμπεριλαμβανομένων των κραμάτων (SU 14), Κατασκευή μεταλλικών προϊόντων, με εξαίρεση τα μηχανήματα και τα είδη εξοπλισμού (SU 15), Κατασκευή ηλεκτρονικών υπολογιστών, ηλεκτρονικών και οπτικών προϊόντων, ηλεκτρικού εξοπλισμού (SU 16), Γενική παραγωγή, π.χ. μηχανήματα, εξοπλισμός, οχήματα, κατασκευή λοιπού εξοπλισμού μεταφορών (SU 17)

|  |  |
| --- | --- |
| **Περιβάλλον** |  |
| 1: Use as an intermediate | ERC 6a |
| 2: Use of non-reactive processing aid at industrial site (no inclusion into or onto article) | ERC 4 |
| **Εργαζόμενος** |  |
| 3: *Chemical production in closed process without likelihood of exposure or in containment conditions or processes with equivalent containment conditions* | PROC 1 |
| 4: *Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* | PROC 2 |
| 5: *Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment condition* | PROC 3 |
| 6: Chemical production where opportunity for exposure arises | PROC 4 |
| 7: Mixing or blending in batch processes | PROC 5 |
| 8: Calendering operations | PROC 6 |
| 9: Indoor use; Industrial spraying; Solid in solution | PROC 7 |
| 10: Outdoor use; Industrial spraying | PROC 7 |
| 11: Outdoor use; Industrial spraying | PROC 7 |
| 12: *Transfer of a substance or mixture during process sampling at non-dedicated facilities with a local exhaust ventilation* | PROC 8a, PROC 26 |
| 13: *Transfer of a substance or mixture during process sampling at non-dedicated facilities without a local exhaust ventilation* | PROC 8a, PROC 26 |
| 14: *Transfer of a substance or mixture during process sampling at dedicated facilities with a local exhaust ventilation* | PROC 8b, PROC 26 |
| 15: *Transfer of a substance or mixture during process sampling at dedicated facilities without a local exhaust ventilation* | PROC 8b, PROC 26 |
| 16: *Transfer of substance or mixture (charging/discharging) at non-dedicated facilities with a local exhaust ventilation.* | PROC 8a, PROC 26 |
| 17: *Transfer of substance or mixture (charging/discharging) at non-dedicated facilities without a local exhaust ventilation.* | PROC 8a, PROC 26 |
| 18: *Transfer of substance or mixture (charging/discharging) at dedicated facilities with a local exhaust ventilation.* | PROC 8b, PROC 26 |
| 19: *Transfer of substance or mixture (charging/discharging) at dedicated facilities without a local exhaust ventilation.* | PROC 8b, PROC 26 |
| 20: *Equipment cleaning and maintenance at non-dedicated facility* | PROC 8a, PROC 28 |
| 21: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing) at facilities with a local exhaust ventilation* | PROC 9, PROC 26, PROC 27b |
| 22: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing) at facilities without a local exhaust ventilation* | PROC 9, PROC 26 |
| 23: Roller application or brushing | PROC 10 |
| 24: Treatment of articles by dipping and pouring | PROC 13 |
| 25: Tabletting, compression, extrusion, pelettisation, granulation | PROC 14 |
| 26: Use as laboratory reagent | PROC 15, PROC 26, PROC 27b |
| 27: *Manufacturing and processing of minerals and/or metals at substantially elevated temperature (> melting point - High fugacity)* | PROC 22, PROC 27a |
| 28: *Manufacturing and processing of minerals and/or metals at substantially elevated temperature (>= melting point. Medium fugacity)* | PROC 22, PROC 27a |
| 29: *Open processing and transfer operations at substantially elevated temperature (=< melting point - Medium fugacity)* | PROC 23, PROC 27a |
| 30: *Open processing and transfer operations at substantially elevated temperature (> melting point - High fugacity)* | PROC 23, PROC 27a |
| 31: *Manual maintenance (cleaning and repair) of machinery at noon-dedicated facilities* | PROC 28 |

**3.2. Συνθήκες χρήσης που επηρεάζουν την έκθεση**

**3.2.1. Έλεγχος της έκθεσης εργαζομένων**

**Συνθήκες χρήσης που ισχύουν για όλα τα συμβάλλοντα σενάρια**

|  |
| --- |
| **Τεχνικές και οργανωτικές συνθήκες και μέτρα** |
| Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision. |
| **Συνθήκες και μέτρα σχετικά με την ατομική προστασία, την υγιεινή και την αξιολόγηση της υγείας** |
| Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| *Use suitable eye protection.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των εργαζομένων** |
| Assumes process temperature up to 20 °C |

​

**Ειδικές συνθήκες χρήσης ανά συμβάλλον σενάριο**

|  |  |
| --- | --- |
| **Συμβάλλον σενάριο** | **Χρειάζονται ειδικά μέτρα** |
| ***Chemical production in closed process without likelihood of exposure or in containment conditions or processes with equivalent containment conditions* (PROC 1)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| ***Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* (PROC 2)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| ***Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment condition* (PROC 3)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| **Chemical production where opportunity for exposure arises (PROC 4)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  Indoor use |
| **Mixing or blending in batch processes (PROC 5)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS.  Outdoor use |
| **Calendering operations (PROC 6)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.*  Indoor use |
| **Indoor use; Industrial spraying; Solid in solution (PROC 7)** | Covers concentrations up to 35 %  *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.*  Covers use up to 2 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  *Covers exposure in the presence of local exhaust ventilation of minimum 95% efficiency or respiratory protection with minimum 90% efficiency (e.g. APF of10)*  *covers spraying with moderate application rate (0.3-3 L/minute)*  *Covers spraying direction only horizontal or downward*  Indoor use |
| **Outdoor use; Industrial spraying (PROC 7)** | Covers concentrations up to 35 %  *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.*  Covers use up to 0.25 h/day  *Covers activity where the primary emission source is located in the breathing zone of the worker (i.e. the volume of air within 1 metre in any direction of the worker’s head)*  *covers any spraying direction*  *covers spraying with high compressed air*  *covers high spraying application rate (> 3 L/minute)*  *Covers spraying activity wearing respiratory protection with minimum efficiency of 95% (i.e. APF of 20)*  Outdoor use |
| **Outdoor use; Industrial spraying (PROC 7)** | Covers concentrations up to 35 %  *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.*  Covers use up to 2 h/day  *Covers activity where the primary emission source is located out the breathing zone of the worker (i.e. the volume of air is more than 1 metre in any direction of the worker’s head)*  *Covers spraying direction only horizontal or downward*  *covers spraying with high compressed air*  *covers high spraying application rate (> 3 L/minute)*  Outdoor use  *covers partial personal enclosure (e.g. truck cabin)* |
| ***Transfer of a substance or mixture during process sampling at non-dedicated facilities with a local exhaust ventilation* (PROC 8a, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 1 h/day  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| ***Transfer of a substance or mixture during process sampling at non-dedicated facilities without a local exhaust ventilation* (PROC 8a, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 1 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.*  Indoor use |
| ***Transfer of a substance or mixture during process sampling at dedicated facilities with a local exhaust ventilation* (PROC 8b, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Local exhaust ventilation; Inhalation - minimum efficiency of 95 %  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| ***Transfer of a substance or mixture during process sampling at dedicated facilities without a local exhaust ventilation* (PROC 8b, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| ***Transfer of substance or mixture (charging/discharging) at non-dedicated facilities with a local exhaust ventilation.* (PROC 8a, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  Indoor use |
| ***Transfer of substance or mixture (charging/discharging) at non-dedicated facilities without a local exhaust ventilation.* (PROC 8a, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.*  Indoor or outdoor use |
| ***Transfer of substance or mixture (charging/discharging) at dedicated facilities with a local exhaust ventilation.* (PROC 8b, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 95 %  Indoor use |
| ***Transfer of substance or mixture (charging/discharging) at dedicated facilities without a local exhaust ventilation.* (PROC 8b, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Indoor or outdoor use |
| ***Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a, PROC 28)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  *Handle substance within a closed system [ES47] Drain down and flush system prior to equipment break-in or maintenance [E55] Transfer via enclosed lines [E52]*  Indoor use |
| ***Transfer of substance or mixture into small containers (dedicated filling line, including weighing) at facilities with a local exhaust ventilation* (PROC 9, PROC 26, PROC 27b)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  Indoor use |
| ***Transfer of substance or mixture into small containers (dedicated filling line, including weighing) at facilities without a local exhaust ventilation* (PROC 9, PROC 26)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.*  Indoor or outdoor use |
| **Roller application or brushing (PROC 10)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.*  Indoor use |
| **Treatment of articles by dipping and pouring (PROC 13)** | Solid, medium dustiness  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| **Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| **Use as laboratory reagent (PROC 15, PROC 26, PROC 27b)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| ***Manufacturing and processing of minerals and/or metals at substantially elevated temperature (> melting point - High fugacity)* (PROC 22, PROC 27a)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  Indoor use |
| ***Manufacturing and processing of minerals and/or metals at substantially elevated temperature (>= melting point. Medium fugacity)* (PROC 22, PROC 27a)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  Indoor use |
| ***Open processing and transfer operations at substantially elevated temperature (=< melting point - Medium fugacity)* (PROC 23, PROC 27a)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Indoor use |
| ***Open processing and transfer operations at substantially elevated temperature (> melting point - High fugacity)* (PROC 23, PROC 27a)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a good standard of controlled ventilation (5 to 10 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  Indoor use |
| ***Manual maintenance (cleaning and repair) of machinery at noon-dedicated facilities* (PROC 28)** | Covers concentrations up to 100 %  *Solid, medium dustiness. Covers also liquid form*  Covers use up to 8 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of %  *Handle substance within a closed system [ES47] Drain down and flush system prior to equipment break-in or maintenance [E55] Transfer via enclosed lines [E52]*  Indoor use |

**3.3. Εκτίμηση της έκθεσης (σε ουσία) και παραπομπή στην πηγή της**

**3.3.1. Έκθεση εργαζομένων: *Chemical production in closed process without likelihood of exposure or in containment conditions or processes with equivalent containment conditions* (PROC 1)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.01 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.04 mg/m³ (TRA Workers 3.0) | < 0.01 |

**3.3.2. Έκθεση εργαζομένων: *Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* (PROC 2)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**3.3.3. Έκθεση εργαζομένων: *Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment condition* (PROC 3)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**3.3.4. Έκθεση εργαζομένων: Chemical production where opportunity for exposure arises (PROC 4)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.5. Έκθεση εργαζομένων: Mixing or blending in batch processes (PROC 5)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.6. Έκθεση εργαζομένων: Calendering operations (PROC 6)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.7. Έκθεση εργαζομένων: Indoor use; Industrial spraying; Solid in solution (PROC 7)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.2 mg/m³ (ART) | 0.24 |
| Διά της εισπνοής, τοπική, οξεία | 9.6 mg/m³ (ART) | 0.96 |

**3.3.8. Έκθεση εργαζομένων: Outdoor use; Industrial spraying (PROC 7)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.2 mg/m³ (ART) | 0.24 |
| Διά της εισπνοής, τοπική, οξεία | 9.6 mg/m³ (ART) | 0.96 |

**3.3.9. Έκθεση εργαζομένων: Outdoor use; Industrial spraying (PROC 7)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.2 mg/m³ (ART) | 0.24 |
| Διά της εισπνοής, τοπική, οξεία | 9.6 mg/m³ (ART) | 0.96 |

**3.3.10. Έκθεση εργαζομένων: *Transfer of a substance or mixture during process sampling at non-dedicated facilities with a local exhaust ventilation* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**3.3.11. Έκθεση εργαζομένων: *Transfer of a substance or mixture during process sampling at non-dedicated facilities without a local exhaust ventilation* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**3.3.12. Έκθεση εργαζομένων: *Transfer of a substance or mixture during process sampling at dedicated facilities with a local exhaust ventilation* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.05 mg/m³ (TRA Workers 3.0) | 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.2 mg/m³ (TRA Workers 3.0) | 0.02 |

**3.3.13. Έκθεση εργαζομένων: *Transfer of a substance or mixture during process sampling at dedicated facilities without a local exhaust ventilation* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**3.3.14. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at non-dedicated facilities with a local exhaust ventilation.* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.15. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at non-dedicated facilities without a local exhaust ventilation.* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.16. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at dedicated facilities with a local exhaust ventilation.* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.035 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.14 mg/m³ (TRA Workers 3.0) | 0.014 |

**3.3.17. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at dedicated facilities without a local exhaust ventilation.* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**3.3.18. Έκθεση εργαζομένων: *Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a, PROC 28)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**3.3.19. Έκθεση εργαζομένων: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing) at facilities with a local exhaust ventilation* (PROC 9, PROC 26, PROC 27b)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.20. Έκθεση εργαζομένων: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing) at facilities without a local exhaust ventilation* (PROC 9, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**3.3.21. Έκθεση εργαζομένων: Roller application or brushing (PROC 10)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.22. Έκθεση εργαζομένων: Treatment of articles by dipping and pouring (PROC 13)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**3.3.23. Έκθεση εργαζομένων: Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**3.3.24. Έκθεση εργαζομένων: Use as laboratory reagent (PROC 15, PROC 26, PROC 27b)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**3.3.25. Έκθεση εργαζομένων: *Manufacturing and processing of minerals and/or metals at substantially elevated temperature (> melting point - High fugacity)* (PROC 22, PROC 27a)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Διά της εισπνοής, τοπική, οξεία | 0.4 mg/m³ (TRA Workers 3.0) | 0.04 |

**3.3.26. Έκθεση εργαζομένων: *Manufacturing and processing of minerals and/or metals at substantially elevated temperature (>= melting point. Medium fugacity)* (PROC 22, PROC 27a)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Διά της εισπνοής, τοπική, οξεία | 0.4 mg/m³ (TRA Workers 3.0) | 0.04 |

**3.3.27. Έκθεση εργαζομένων: *Open processing and transfer operations at substantially elevated temperature (=< melting point - Medium fugacity)* (PROC 23, PROC 27a)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**3.3.28. Έκθεση εργαζομένων: *Open processing and transfer operations at substantially elevated temperature (> melting point - High fugacity)* (PROC 23, PROC 27a)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.03 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.12 mg/m³ (TRA Workers 3.0) | 0.012 |

**3.3.29. Έκθεση εργαζομένων: *Manual maintenance (cleaning and repair) of machinery at noon-dedicated facilities* (PROC 28)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.5 mg/m³ (ECETOC TRA Workers) | 0.1 |
| Διά της εισπνοής, τοπική, οξεία | 2 mg/m³ (ECETOC TRA Workers) | 0.2 |

**3.4. Καθοδήγηση προς τους μεταγενέστερους χρήστες σχετικά με την αξιολόγηση του κατά πόσον δραστηριοποιούνται εντός των ορίων που τίθενται στο ΣΕ**

Εργαλείο κλιμακοποίησης: For the evaluation of spraying activities the ART (Advanced Reach Tool) modeling tool has been used. In case the DU cannot demonstrate safe use with the conditions currently presented in this SDS Annex, the ART modeling Tool can be used as scaling tool.

**Κεφάλαιο 4. ES 4: Ευρεία χρήση από επαγγελματίες; Διάφοροι τομείς (SU 0, SU 1, SU 13, SU 19, SU 20)**

**4.1. Ενότητα τίτλων**

Ονομασία ES: Professional use; Indoor use

Τομέας χρήσης: Άλλο (SU 0), Γεωργία, δασοκομία, αλιεία (SU 1), Μεταποίηση άλλων μη μεταλλικών ορυκτών προϊόντων, π.χ. γύψου, τσιμέντου (SU 13), Εργασίες οικοδόμησης και κατασκευαστικές εργασίες (SU 19), Υπηρεσίες υγείας (SU 20)

|  |  |
| --- | --- |
| **Περιβάλλον** |  |
| 1: Indoor use; Professional use | ERC 8a |
| **Εργαζόμενος** |  |
| 2: *Chemical production in closed process without likelihood of exposure or in containment conditions or processes with equivalent containment conditions* | PROC 1 |
| 3: *Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* | PROC 2 |
| 4: *Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment condition* | PROC 3 |
| 5: Chemical production where opportunity for exposure arises | PROC 4 |
| 6: Mixing or blending in batch processes | PROC 5 |
| 7: *Transfer of substance or mixture (charging/discharging) at non-dedicated facilities* | PROC 8a, PROC 26 |
| 8: *Transfer of substance or mixture (charging/discharging) at dedicated facilities* | PROC 8b, PROC 26 |
| 9: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* | PROC 9, PROC 26 |
| 10: Roller application or brushing | PROC 10 |
| 11: Indoor use; Non-industrial spraying; Solid in solution | PROC 11 |
| 12: Use as laboratory reagent | PROC 15, PROC 26 |
| 13: Manual activities involving hand contact | PROC 19 |
| 14: Use of functional fluids in small devices | PROC 20 |
| 15: *Equipment cleaning and maintenance at non-dedicated facility* | PROC 8a, PROC 28 |
| 16: *Manual maintenance (cleaning and repair) of machinery at non-dedicated facility* | PROC 28 |

**4.2. Συνθήκες χρήσης που επηρεάζουν την έκθεση**

**4.2.1. Έλεγχος της έκθεσης εργαζομένων**

**Συνθήκες χρήσης που ισχύουν για όλα τα συμβάλλοντα σενάρια**

|  |
| --- |
| **Συνθήκες και μέτρα σχετικά με την ατομική προστασία, την υγιεινή και την αξιολόγηση της υγείας** |
| *Use suitable eye protection.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των εργαζομένων** |
| Indoor use |
| Assumes process temperature up to 20 °C |

​

**Ειδικές συνθήκες χρήσης ανά συμβάλλον σενάριο**

|  |  |
| --- | --- |
| **Συμβάλλον σενάριο** | **Χρειάζονται ειδικά μέτρα** |
| ***Chemical production in closed process without likelihood of exposure or in containment conditions or processes with equivalent containment conditions* (PROC 1)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| ***Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* (PROC 2)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| ***Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment condition* (PROC 3)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Chemical production where opportunity for exposure arises (PROC 4)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Local exhaust ventilation; Inhalation - minimum efficiency of 80 %  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Mixing or blending in batch processes (PROC 5)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Local exhaust ventilation; Inhalation - minimum efficiency of 80 %  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| ***Transfer of substance or mixture (charging/discharging) at non-dedicated facilities* (PROC 8a, PROC 26)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Local exhaust ventilation; Inhalation - minimum efficiency of 80 %  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| ***Transfer of substance or mixture (charging/discharging) at dedicated facilities* (PROC 8b, PROC 26)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Local exhaust ventilation; Inhalation - minimum efficiency of 80 %  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| ***Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* (PROC 9, PROC 26)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Local exhaust ventilation; Inhalation - minimum efficiency of 80 %  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Roller application or brushing (PROC 10)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 90 %  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Indoor use; Non-industrial spraying; Solid in solution (PROC 11)** | Covers concentrations up to 35 %  *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.*  Covers use up to 2 h/day  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  *Covers exposure in the presence of local exhaust ventilation of minimum 95% efficiency or respiratory protection with minimum 90% efficiency (e.g. APF of10)*  *covers spraying with moderate application rate (0.3-3 L/minute)*  *Covers spraying direction only horizontal or downward*  Wear suitable gloves tested to EN374.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Use as laboratory reagent (PROC 15, PROC 26)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Manual activities involving hand contact (PROC 19)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of 80 %  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Use of functional fluids in small devices (PROC 20)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| ***Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a, PROC 28)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  *Handle substance within a closed system [ES47] Drain down and flush system prior to equipment break-in or maintenance [E55] Transfer via enclosed lines [E52]*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Respiratory protection (APF of 10) is to be worn in those case where there is potential for peak exposure. Alternatively, good general ventilation with a minimum of 5-10 air changes per air can be applied.* |
| ***Manual maintenance (cleaning and repair) of machinery at non-dedicated facility* (PROC 28)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Provide a basic standard of general ventilation (1 to 3 air changes per hour).  Local exhaust ventilation; Inhalation - minimum efficiency of %  *Handle substance within a closed system [ES47] Drain down and flush system prior to equipment break-in or maintenance [E55] Transfer via enclosed lines [E52]*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |

**4.3. Εκτίμηση της έκθεσης (σε ουσία) και παραπομπή στην πηγή της**

**4.3.1. Έκθεση εργαζομένων: *Chemical production in closed process without likelihood of exposure or in containment conditions or processes with equivalent containment conditions* (PROC 1)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.01 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.04 mg/m³ (TRA Workers 3.0) | < 0.01 |

**4.3.2. Έκθεση εργαζομένων: *Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* (PROC 2)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**4.3.3. Έκθεση εργαζομένων: *Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment condition* (PROC 3)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.4. Έκθεση εργαζομένων: Chemical production where opportunity for exposure arises (PROC 4)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.5. Έκθεση εργαζομένων: Mixing or blending in batch processes (PROC 5)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.6. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at non-dedicated facilities* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.4 mg/m³ (TRA Workers 3.0) | 0.28 |
| Διά της εισπνοής, τοπική, οξεία | 5.6 mg/m³ (TRA Workers 3.0) | 0.56 |

**4.3.7. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at dedicated facilities* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.8. Έκθεση εργαζομένων: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* (PROC 9, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.9. Έκθεση εργαζομένων: Roller application or brushing (PROC 10)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**4.3.10. Έκθεση εργαζομένων: Indoor use; Non-industrial spraying; Solid in solution (PROC 11)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.2 mg/m³ (ART) | 0.24 |
| Διά της εισπνοής, τοπική, οξεία | 9.6 mg/m³ (ART) | 0.96 |

**4.3.11. Έκθεση εργαζομένων: Use as laboratory reagent (PROC 15, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**4.3.12. Έκθεση εργαζομένων: Manual activities involving hand contact (PROC 19)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.13. Έκθεση εργαζομένων: Use of functional fluids in small devices (PROC 20)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Διά της εισπνοής, τοπική, οξεία | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**4.3.14. Έκθεση εργαζομένων: *Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a, PROC 28)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.15. Έκθεση εργαζομένων: *Manual maintenance (cleaning and repair) of machinery at non-dedicated facility* (PROC 28)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (ECETOC TRA Workers) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (ECETOC TRA Workers) | 0.28 |

**4.4. Καθοδήγηση προς τους μεταγενέστερους χρήστες σχετικά με την αξιολόγηση του κατά πόσον δραστηριοποιούνται εντός των ορίων που τίθενται στο ΣΕ**

Εργαλείο κλιμακοποίησης: For the evaluation of spraying activities the ART (Advanced Reach Tool) modeling tool has been used. In case the DU cannot demonstrate safe use with the conditions currently presented in this SDS Annex, the ART modeling Tool can be used as scaling tool.

**Κεφάλαιο 5. ES 5: Ευρεία χρήση από επαγγελματίες; Διάφοροι τομείς (SU 0, SU 1, SU 5, SU 13, SU 19, SU 20)**

**5.1. Ενότητα τίτλων**

Ονομασία ES: Professional use; Outdoor use

Τομέας χρήσης: Άλλο (SU 0), Γεωργία, δασοκομία, αλιεία (SU 1), Παραγωγή κλωστοϋφαντουργικών υλών, δέρματος, γούνας (SU 5), Μεταποίηση άλλων μη μεταλλικών ορυκτών προϊόντων, π.χ. γύψου, τσιμέντου (SU 13), Εργασίες οικοδόμησης και κατασκευαστικές εργασίες (SU 19), Υπηρεσίες υγείας (SU 20)

|  |  |
| --- | --- |
| **Περιβάλλον** |  |
| 1: Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) | ERC 8d |
| **Εργαζόμενος** |  |
| 2: *Chemical production in closed process without likelihood of exposure or in containment conditions.* | PROC 1 |
| 3: *Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* | PROC 2 |
| 4: *Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions* | PROC 3 |
| 5: Chemical production where opportunity for exposure arises | PROC 4 |
| 6: Mixing or blending in batch processes | PROC 5 |
| 7: *Transfer of substance or mixture (charging/discharging) at non-dedicated facilities* | PROC 8a, PROC 26 |
| 8: *Transfer of substance or mixture (charging/discharging) at dedicated facilities* | PROC 8b, PROC 26 |
| 9: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* | PROC 9, PROC 26 |
| 10: Roller application or brushing | PROC 10 |
| 11: Outdoor use; Non-industrial spraying | PROC 11 |
| 12: Outdoor use; Non-industrial spraying | PROC 11 |
| 13: Use as laboratory reagent | PROC 15, PROC 26 |
| 14: Mixing operations; Manual activities involving hand contact | PROC 19 |
| 15: *Equipment cleaning and maintenance at non-dedicated facility* | PROC 8a |
| 16: Use of functional fluids in small devices | PROC 20 |

**5.2. Συνθήκες χρήσης που επηρεάζουν την έκθεση**

**5.2.1. Έλεγχος της έκθεσης εργαζομένων**

**Συνθήκες χρήσης που ισχύουν για όλα τα συμβάλλοντα σενάρια**

|  |
| --- |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των εργαζομένων** |
| Outdoor use |
| Assumes process temperature up to 20 °C |

​

**Ειδικές συνθήκες χρήσης ανά συμβάλλον σενάριο**

|  |  |
| --- | --- |
| **Συμβάλλον σενάριο** | **Χρειάζονται ειδικά μέτρα** |
| ***Chemical production in closed process without likelihood of exposure or in containment conditions.* (PROC 1)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection* |
| ***Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* (PROC 2)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection* |
| ***Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions* (PROC 3)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection* |
| **Chemical production where opportunity for exposure arises (PROC 4)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS.  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection* |
| **Mixing or blending in batch processes (PROC 5)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection* |
| ***Transfer of substance or mixture (charging/discharging) at non-dedicated facilities* (PROC 8a, PROC 26)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection*  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS. |
| ***Transfer of substance or mixture (charging/discharging) at dedicated facilities* (PROC 8b, PROC 26)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection*  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS. |
| ***Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* (PROC 9, PROC 26)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  *Use suitable eye protection*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS. |
| **Roller application or brushing (PROC 10)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection*  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS. |
| **Outdoor use; Non-industrial spraying (PROC 11)** | Covers concentrations up to 35 %  *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.*  Covers use up to 2 h/day  *Covers activity where the primary emission source is located out the breathing zone of the worker (i.e. the volume of air is more than 1 metre in any direction of the worker’s head)*  Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.  *Covers spraying direction only horizontal or downward*  *covers spraying with high compressed air*  *covers high spraying application rate (> 3 L/minute)*  *Use suitable eye protection.*  Wear suitable gloves tested to EN374.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *covers partial personal enclosure (e.g. truck cabin)* |
| **Outdoor use; Non-industrial spraying (PROC 11)** | Covers concentrations up to 35 %  *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.*  Covers use up to 0.25 h/day  *Covers activity where the primary emission source is located in the breathing zone of the worker (i.e. the volume of air within 1 metre in any direction of the worker’s head)*  Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.  *covers any spraying direction*  *covers spraying with high compressed air*  *covers high spraying application rate (> 3 L/minute)*  *Use suitable eye protection.*  *Covers spraying activity wearing respiratory protection with minimum efficiency of 95% (i.e. APF of 20)*  Wear suitable gloves tested to EN374.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS. |
| **Use as laboratory reagent (PROC 15, PROC 26)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection* |
| **Mixing operations; Manual activities involving hand contact (PROC 19)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection*  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS. |
| ***Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  *Handle substance within a closed system [ES47] Drain down and flush system prior to equipment break-in or maintenance [E55] Transfer via enclosed lines [E52]*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection*  Wear suitable respiratory protection.; Inhalation - minimum efficiency of 90 %; For further specification, refer to section 8 of the SDS. |
| **Use of functional fluids in small devices (PROC 20)** | Covers concentrations up to 100 %  Solid, medium dustiness  Covers use up to 8 h/day  *Assumes a good basic standard of occupational hygiene is implemented*  Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training.; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands.; For further specification, refer to section 8 of the SDS.  *Use suitable eye protection* |

**5.3. Εκτίμηση της έκθεσης (σε ουσία) και παραπομπή στην πηγή της**

**5.3.1. Έκθεση εργαζομένων: *Chemical production in closed process without likelihood of exposure or in containment conditions.* (PROC 1)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 7E-3 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.028 mg/m³ (TRA Workers 3.0) | < 0.01 |

**5.3.2. Έκθεση εργαζομένων: *Chemical production in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions* (PROC 2)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**5.3.3. Έκθεση εργαζομένων: *Manufacture or formulation in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions* (PROC 3)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**5.3.4. Έκθεση εργαζομένων: Chemical production where opportunity for exposure arises (PROC 4)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.5. Έκθεση εργαζομένων: Mixing or blending in batch processes (PROC 5)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.6. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at non-dedicated facilities* (PROC 8a, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**5.3.7. Έκθεση εργαζομένων: *Transfer of substance or mixture (charging/discharging) at dedicated facilities* (PROC 8b, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.8. Έκθεση εργαζομένων: *Transfer of substance or mixture into small containers (dedicated filling line, including weighing)* (PROC 9, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.9. Έκθεση εργαζομένων: Roller application or brushing (PROC 10)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.10. Έκθεση εργαζομένων: Outdoor use; Non-industrial spraying (PROC 11)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.2 mg/m³ (ART) | 0.24 |
| Διά της εισπνοής, τοπική, οξεία | 9.6 mg/m³ (ART) | 0.96 |

**5.3.11. Έκθεση εργαζομένων: Outdoor use; Non-industrial spraying (PROC 11)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 1.2 mg/m³ (ART) | 0.24 |
| Διά της εισπνοής, τοπική, οξεία | 9.6 mg/m³ (ART) | 0.96 |

**5.3.12. Έκθεση εργαζομένων: Use as laboratory reagent (PROC 15, PROC 26)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.13. Έκθεση εργαζομένων: Mixing operations; Manual activities involving hand contact (PROC 19)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Διά της εισπνοής, τοπική, οξεία | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.14. Έκθεση εργαζομένων: *Equipment cleaning and maintenance at non-dedicated facility* (PROC 8a)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**5.3.15. Έκθεση εργαζομένων: Use of functional fluids in small devices (PROC 20)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Διά της εισπνοής, τοπική, οξεία | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**5.4. Καθοδήγηση προς τους μεταγενέστερους χρήστες σχετικά με την αξιολόγηση του κατά πόσον δραστηριοποιούνται εντός των ορίων που τίθενται στο ΣΕ**

Κατευθυντήριες γραμμές: Application of de-icing agent (mixture of 70% NaCl and 30% of a 20% solution of CaCl2) assumes a fraction of 0.06 of CaCl2 in road salt with an annual tonnage of 0.09 tonnes/km for 25 emission days per year. Application of de-icing agent (liquid CaCl2 brine (max. 35% solution)) assumes a fraction of 0.35 of CaCl2 in road salt with an annual tonnage of 0.28 tonnes/km for 25 emission days per year. Application of Dust suppressor (solid CaCl2 (up to 80%)) assumes a fraction of 0.8 of CaCl2 in road salt with an annual tonnage of 2.4 tonnes/km for 3 emission days per year. Application of Dust suppressor (solid CaCl2 (up to 37%)) assumes a fraction of 0.37 of CaCl2 in road salt with an annual tonnage of 1.11 tonnes/km for 3 emission days per year.

**Κεφάλαιο 6. ES 6: Χρήση από τους καταναλωτές; Διάφορα προϊόντα (PC 0, PC 2, PC 4, PC 12, PC 16, PC 27, PC 35, PC 37)**

**6.1. Ενότητα τίτλων**

Ονομασία ES: Consumer use; Indoor or outdoor use

Κατηγορία χημικού προϊόντος: Άλλο (PC 0), Υλικά απορρόφησης (PC 2), Αντιπηκτικά και αντιπαγωτικά προϊόντα (PC 4), Λιπάσματα (PC 12), Υγρά μεταφοράς θερμότητας (PC 16), Φυτοπροστατευτικά προϊόντα (PC 27), Προϊόντα έκπλυσης και καθαρισμού (PC 35), Χημικά επεξεργασίας ύδατος (PC 37)

|  |  |
| --- | --- |
| **Περιβάλλον** |  |
| 1: Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) | ERC 8a |
| 2: Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) | ERC 8d |
| **Καταναλωτής** |  |
| 3: Dust suppressant; No spraying | PC 0 |
| 4: Dust suppressant; Spraying | PC 0 |
| 5: *Humidity adsorbants* | PC 0 |
| 6: *Cement/concrete/mortar* | PC 0 |
| 7: Adsorbents | PC 2 |
| 8: Anti-freeze and de-icing products; No spraying | PC 4 |
| 9: Anti-freeze and de-icing products; Spraying | PC 4 |
| 10: Fertilizers; No spraying | PC 12 |
| 11: Fertilizers; Spraying | PC 12 |
| 12: Heat transfer fluids | PC 16 |
| 13: Plant protection products; No spraying | PC 27 |
| 14: Plant protection products; Spraying | PC 27 |
| 15: Water treatment chemicals | PC 37 |
| 16: Washing and cleaning products; No spraying | PC 35 |
| 17: Washing and cleaning products; Spraying | PC 35 |

**6.2. Συνθήκες χρήσης που επηρεάζουν την έκθεση**

**6.2.1. Έλεγχος της έκθεσης καταναλωτών: Dust suppressant; No spraying (PC 0)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.2. Έλεγχος της έκθεσης καταναλωτών: Dust suppressant; Spraying (PC 0)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 45 % |
| *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.* |
| *Covers spraying activity* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.2.3. Έλεγχος της έκθεσης καταναλωτών: *Humidity adsorbants* (PC 0)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.4. Έλεγχος της έκθεσης καταναλωτών: *Cement/concrete/mortar* (PC 0)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.5. Έλεγχος της έκθεσης καταναλωτών: Adsorbents (PC 2)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.6. Έλεγχος της έκθεσης καταναλωτών: Anti-freeze and de-icing products; No spraying (PC 4)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| For each use event, covers use amounts up to 5E4 g/event |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.7. Έλεγχος της έκθεσης καταναλωτών: Anti-freeze and de-icing products; Spraying (PC 4)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 45 % |
| *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.* |
| *Covers spraying activity* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.2.8. Έλεγχος της έκθεσης καταναλωτών: Fertilizers; No spraying (PC 12)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.9. Έλεγχος της έκθεσης καταναλωτών: Fertilizers; Spraying (PC 12)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 45 % |
| *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.* |
| *Covers spraying activity* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.2.10. Έλεγχος της έκθεσης καταναλωτών: Heat transfer fluids (PC 16)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.11. Έλεγχος της έκθεσης καταναλωτών: Plant protection products; No spraying (PC 27)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.12. Έλεγχος της έκθεσης καταναλωτών: Plant protection products; Spraying (PC 27)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 45 % |
| *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.* |
| *Covers spraying activity* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.2.13. Έλεγχος της έκθεσης καταναλωτών: Water treatment chemicals (PC 37)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| *Covers exposure via inhalation route* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.14. Έλεγχος της έκθεσης καταναλωτών: Washing and cleaning products; No spraying (PC 35)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Άλλες συνθήκες που επηρεάζουν την έκθεση των καταναλωτών** |
| Release area <= 125 m2 |

**6.2.15. Έλεγχος της έκθεσης καταναλωτών: Washing and cleaning products; Spraying (PC 35)**

|  |
| --- |
| **Χαρακτηριστικά προϊόντος (αντικειμένου)** |
| Covers concentrations up to 45 % |
| *Physical form of the product is assumed as liquid, this is conservative as it is a solid in a liquid with a very low vapour pressure.* |
| *Covers spraying activity* |
| **Χρησιμοποιούμενη ποσότητα, συχνότητα και διάρκεια χρήσης/έκθεσης** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Πληροφορίες και συστάσεις συμπεριφοράς προς τους καταναλωτές** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.3. Εκτίμηση της έκθεσης (σε ουσία) και παραπομπή στην πηγή της**

**6.3.1. Έκθεση καταναλωτών: Dust suppressant; No spraying (PC 0)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.2. Έκθεση καταναλωτών: Dust suppressant; Spraying (PC 0)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Διά της εισπνοής, τοπική, οξεία | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.3.3. Έκθεση καταναλωτών: *Humidity adsorbants* (PC 0)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.4. Έκθεση καταναλωτών: *Cement/concrete/mortar* (PC 0)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.5. Έκθεση καταναλωτών: Adsorbents (PC 2)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.6. Έκθεση καταναλωτών: Anti-freeze and de-icing products; No spraying (PC 4)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.7. Έκθεση καταναλωτών: Anti-freeze and de-icing products; Spraying (PC 4)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Διά της εισπνοής, τοπική, οξεία | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.3.8. Έκθεση καταναλωτών: Fertilizers; No spraying (PC 12)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.9. Έκθεση καταναλωτών: Fertilizers; Spraying (PC 12)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Διά της εισπνοής, τοπική, οξεία | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.3.10. Έκθεση καταναλωτών: Heat transfer fluids (PC 16)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.11. Έκθεση καταναλωτών: Plant protection products; No spraying (PC 27)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.12. Έκθεση καταναλωτών: Plant protection products; Spraying (PC 27)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Διά της εισπνοής, τοπική, οξεία | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.3.13. Έκθεση καταναλωτών: Water treatment chemicals (PC 37)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.14. Έκθεση καταναλωτών: Washing and cleaning products; No spraying (PC 35)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Διά της εισπνοής, τοπική, οξεία | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.15. Έκθεση καταναλωτών: Washing and cleaning products; Spraying (PC 35)**

| **Οδός έκθεσης και τύπος επιπτώσεων** | **Εκτίμηση της έκθεσης (σε ουσία)** | **RCR** |
| --- | --- | --- |
| Διά της εισπνοής, τοπική, μακροχρόνια | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Διά της εισπνοής, τοπική, οξεία | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.4. Καθοδήγηση προς τους μεταγενέστερους χρήστες σχετικά με την αξιολόγηση του κατά πόσον δραστηριοποιούνται εντός των ορίων που τίθενται στο ΣΕ**