**SCÉNÁŘ EXPOZICE URČENÝ PRO KOMUNIKACI**

**Název látky:** calcium chloride

**číslo ES:** 233-140-8

**Číslo CAS:** 10043-52-4

**Registrační Číslo:**

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**Kapitola 1. ES 1: Výroba**

**1.1. Část názvu**

Název scénáře expozice: Manufacture

|  |  |
| --- | --- |
| **Životní prostředí** |  |
| 1: *Manufacturing of substances* | ERC 1 |
| **Pracovník** |  |
| 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. Podmínky použití ovlivňující expozici**

**1.2.1. Omezení expozice pracovníků**

**Podmínky použití platné pro všechny dílčí scénáře**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství (nebo množství obsažené v předmětech), frekvence a délka použití / trvání expozice** |
| Covers use up to 8 h/day |
| **Technické a organizační podmínky a opatření** |
| 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. |
| **Podmínky a opatření související s hodnocením prostředků osobní ochrany, hygieny a zdraví** |
| 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. |
| **Další podmínky ovlivňující expozici pracovníků** |
| Indoor use |
| Assumes process temperature up to 20 °C |

**1.3. Odhad expozice a odkaz na jeho zdroj**

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.774 mg/m³ (Naměřené údaje) | 0.355 |
| Inhalační, místní, akutní | 1.774 mg/m³ (Naměřené údaje) | 0.177 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.774 mg/m³ (Naměřené údaje) | 0.355 |
| Inhalační, místní, akutní | 1.774 mg/m³ (Naměřené údaje) | 0.177 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.774 mg/m³ (Naměřené údaje) | 0.355 |
| Inhalační, místní, akutní | 1.774 mg/m³ (Naměřené údaje) | 0.177 |

**1.3.4. Expozice pracovníků: Chemical production where opportunity for exposure arises (PROC 4)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.881 mg/m³ (Naměřené údaje) | 0.376 |
| Inhalační, místní, akutní | 1.881 mg/m³ (Naměřené údaje) | 0.188 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

**1.3.8. Expozice pracovníků: Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

**1.3.9. Expozice pracovníků: Use as laboratory reagent (PROC 15, PROC 26)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.774 mg/m³ (Naměřené údaje) | 0.355 |
| Inhalační, místní, akutní | 1.774 mg/m³ (Naměřené údaje) | 0.177 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 2.742 mg/m³ (Naměřené údaje) | 0.548 |
| Inhalační, místní, akutní | 2.742 mg/m³ (Naměřené údaje) | 0.274 |

**1.4. Pokyny následnému uživateli ke zhodnocení, zda pracuje v mezích stanovených scénářem expozice**

**Kapitola 2. ES 2: Formulace nebo nové balení**

**2.1. Část názvu**

Název scénáře expozice: Formulation or re-packing; Distribution of substance

|  |  |
| --- | --- |
| **Životní prostředí** |  |
| 1: Formulation into mixture | ERC 2 |
| **Pracovník** |  |
| 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. Podmínky použití ovlivňující expozici**

**2.2.1. Omezení expozice pracovníků**

**Podmínky použití platné pro všechny dílčí scénáře**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Technické a organizační podmínky a opatření** |
| Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision. |
| **Podmínky a opatření související s hodnocením prostředků osobní ochrany, hygieny a zdraví** |
| 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.* |
| **Další podmínky ovlivňující expozici pracovníků** |
| Indoor use |
| Assumes process temperature up to 20 °C |

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**zvláštní podmínky použití pro každý dílčí scénář**

|  |  |
| --- | --- |
| **Přispívající scénář** | **Specifické opatření** |
| ***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. Odhad expozice a odkaz na jeho zdroj**

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.01 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Inhalační, místní, akutní | 0.04 mg/m³ (TRA Workers 3.0) | < 0.01 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**2.3.4. Expozice pracovníků: *Chemical production where opportunity for exposure arises* (PROC 4)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**2.3.5. Expozice pracovníků: Mixing or blending in batch processes (PROC 5)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**2.3.9. Expozice pracovníků: Use as laboratory reagent (PROC 15, PROC 26)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**2.3.10. Expozice pracovníků: Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**2.3.14. Expozice pracovníků: Manual maintenance (cleaning and repair) of machinery (PROC 28)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (PROC 8a estimate used to cover PROC 28) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (PROC 8a estimate used to cover PROC 28) | 0.2 |

**2.4. Pokyny následnému uživateli ke zhodnocení, zda pracuje v mezích stanovených scénářem expozice**

**Kapitola 3. ES 3: Použití v průmyslových zařízeních; Různá odvětví (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. Část názvu**

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

Oblast použití: Zemědělství, lesnictví, rybářství (SU 1), Těžební průmysl (kromě průmyslových odvětví provozovaných na volném moři) (SU 2a), Průmyslová odvětví provozovaná na volném moři (SU 2b), Výroba potravin (SU 4), Výroba textilií, kůží, kožešin (SU 5), Výroba celulózy, papíru a papírových výrobků (SU 6b), Výroba těžkých, velkoobjemových chemických látek (včetně ropných výrobků) (SU 8), Výroba lehkých chemických látek (SU 9), Výroba pryžových výrobků (SU 11), Výroba výrobků z umělých hmot, včetně slučování a konverze (SU 12), Výroba jiných nekovových nerostných výrobků, např. cementových směsí, cementu (SU 13), Výroba základních kovů včetně slitin (SU 14), Výroba obráběných kovových výrobků, kromě strojů a zařízení (SU 15), Výroba počítačových, elektronických a optických výrobků, elektrického zařízení (SU 16), Všeobecná výroba, např. strojů, zařízení, vozidel a jiných dopravních zařízení (SU 17)

|  |  |
| --- | --- |
| **Životní prostředí** |  |
| 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 |
| **Pracovník** |  |
| 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. Podmínky použití ovlivňující expozici**

**3.2.1. Omezení expozice pracovníků**

**Podmínky použití platné pro všechny dílčí scénáře**

|  |
| --- |
| **Technické a organizační podmínky a opatření** |
| Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision. |
| **Podmínky a opatření související s hodnocením prostředků osobní ochrany, hygieny a zdraví** |
| 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.* |
| **Další podmínky ovlivňující expozici pracovníků** |
| Assumes process temperature up to 20 °C |

​

**zvláštní podmínky použití pro každý dílčí scénář**

|  |  |
| --- | --- |
| **Přispívající scénář** | **Specifické opatření** |
| ***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. Odhad expozice a odkaz na jeho zdroj**

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.01 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Inhalační, místní, akutní | 0.04 mg/m³ (TRA Workers 3.0) | < 0.01 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**3.3.4. Expozice pracovníků: Chemical production where opportunity for exposure arises (PROC 4)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.5. Expozice pracovníků: Mixing or blending in batch processes (PROC 5)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.6. Expozice pracovníků: Calendering operations (PROC 6)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.2 mg/m³ (ART) | 0.24 |
| Inhalační, místní, akutní | 9.6 mg/m³ (ART) | 0.96 |

**3.3.8. Expozice pracovníků: Outdoor use; Industrial spraying (PROC 7)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.2 mg/m³ (ART) | 0.24 |
| Inhalační, místní, akutní | 9.6 mg/m³ (ART) | 0.96 |

**3.3.9. Expozice pracovníků: Outdoor use; Industrial spraying (PROC 7)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.2 mg/m³ (ART) | 0.24 |
| Inhalační, místní, akutní | 9.6 mg/m³ (ART) | 0.96 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.05 mg/m³ (TRA Workers 3.0) | 0.01 |
| Inhalační, místní, akutní | 0.2 mg/m³ (TRA Workers 3.0) | 0.02 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.035 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Inhalační, místní, akutní | 0.14 mg/m³ (TRA Workers 3.0) | 0.014 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**3.3.19. Expozice pracovníků: *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)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

**3.3.21. Expozice pracovníků: Roller application or brushing (PROC 10)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**3.3.22. Expozice pracovníků: Treatment of articles by dipping and pouring (PROC 13)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

**3.3.23. Expozice pracovníků: Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (TRA Workers 3.0) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (TRA Workers 3.0) | 0.2 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Inhalační, místní, akutní | 0.4 mg/m³ (TRA Workers 3.0) | 0.04 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.1 mg/m³ (TRA Workers 3.0) | 0.02 |
| Inhalační, místní, akutní | 0.4 mg/m³ (TRA Workers 3.0) | 0.04 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.03 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Inhalační, místní, akutní | 0.12 mg/m³ (TRA Workers 3.0) | 0.012 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.5 mg/m³ (ECETOC TRA Workers) | 0.1 |
| Inhalační, místní, akutní | 2 mg/m³ (ECETOC TRA Workers) | 0.2 |

**3.4. Pokyny následnému uživateli ke zhodnocení, zda pracuje v mezích stanovených scénářem expozice**

Nástroj pro přeškálování: 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.

**Kapitola 4. ES 4: Široké použití profesionálními pracovníky; Různá odvětví (SU 0, SU 1, SU 13, SU 19, SU 20)**

**4.1. Část názvu**

Název scénáře expozice: Professional use; Indoor use

Oblast použití: Jiné (SU 0), Zemědělství, lesnictví, rybářství (SU 1), Výroba jiných nekovových nerostných výrobků, např. cementových směsí, cementu (SU 13), Stavebnictví a stavitelské práce (SU 19), Zdravotnické služby (SU 20)

|  |  |
| --- | --- |
| **Životní prostředí** |  |
| 1: Indoor use; Professional use | ERC 8a |
| **Pracovník** |  |
| 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. Podmínky použití ovlivňující expozici**

**4.2.1. Omezení expozice pracovníků**

**Podmínky použití platné pro všechny dílčí scénáře**

|  |
| --- |
| **Podmínky a opatření související s hodnocením prostředků osobní ochrany, hygieny a zdraví** |
| *Use suitable eye protection.* |
| **Další podmínky ovlivňující expozici pracovníků** |
| Indoor use |
| Assumes process temperature up to 20 °C |

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**zvláštní podmínky použití pro každý dílčí scénář**

|  |  |
| --- | --- |
| **Přispívající scénář** | **Specifické opatření** |
| ***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. Odhad expozice a odkaz na jeho zdroj**

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.01 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Inhalační, místní, akutní | 0.04 mg/m³ (TRA Workers 3.0) | < 0.01 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.4. Expozice pracovníků: Chemical production where opportunity for exposure arises (PROC 4)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.5. Expozice pracovníků: Mixing or blending in batch processes (PROC 5)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.4 mg/m³ (TRA Workers 3.0) | 0.28 |
| Inhalační, místní, akutní | 5.6 mg/m³ (TRA Workers 3.0) | 0.56 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.9. Expozice pracovníků: Roller application or brushing (PROC 10)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.2 mg/m³ (ART) | 0.24 |
| Inhalační, místní, akutní | 9.6 mg/m³ (ART) | 0.96 |

**4.3.11. Expozice pracovníků: Use as laboratory reagent (PROC 15, PROC 26)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**4.3.12. Expozice pracovníků: Manual activities involving hand contact (PROC 19)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**4.3.13. Expozice pracovníků: Use of functional fluids in small devices (PROC 20)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1 mg/m³ (TRA Workers 3.0) | 0.2 |
| Inhalační, místní, akutní | 4 mg/m³ (TRA Workers 3.0) | 0.4 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (ECETOC TRA Workers) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (ECETOC TRA Workers) | 0.28 |

**4.4. Pokyny následnému uživateli ke zhodnocení, zda pracuje v mezích stanovených scénářem expozice**

Nástroj pro přeškálování: 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.

**Kapitola 5. ES 5: Široké použití profesionálními pracovníky; Různá odvětví (SU 0, SU 1, SU 5, SU 13, SU 19, SU 20)**

**5.1. Část názvu**

Název scénáře expozice: Professional use; Outdoor use

Oblast použití: Jiné (SU 0), Zemědělství, lesnictví, rybářství (SU 1), Výroba textilií, kůží, kožešin (SU 5), Výroba jiných nekovových nerostných výrobků, např. cementových směsí, cementu (SU 13), Stavebnictví a stavitelské práce (SU 19), Zdravotnické služby (SU 20)

|  |  |
| --- | --- |
| **Životní prostředí** |  |
| 1: Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) | ERC 8d |
| **Pracovník** |  |
| 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. Podmínky použití ovlivňující expozici**

**5.2.1. Omezení expozice pracovníků**

**Podmínky použití platné pro všechny dílčí scénáře**

|  |
| --- |
| **Další podmínky ovlivňující expozici pracovníků** |
| Outdoor use |
| Assumes process temperature up to 20 °C |

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**zvláštní podmínky použití pro každý dílčí scénář**

|  |  |
| --- | --- |
| **Přispívající scénář** | **Specifické opatření** |
| ***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. Odhad expozice a odkaz na jeho zdroj**

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 7E-3 mg/m³ (TRA Workers 3.0) | < 0.01 |
| Inhalační, místní, akutní | 0.028 mg/m³ (TRA Workers 3.0) | < 0.01 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**5.3.4. Expozice pracovníků: Chemical production where opportunity for exposure arises (PROC 4)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.5. Expozice pracovníků: Mixing or blending in batch processes (PROC 5)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.9. Expozice pracovníků: Roller application or brushing (PROC 10)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

**5.3.10. Expozice pracovníků: Outdoor use; Non-industrial spraying (PROC 11)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.2 mg/m³ (ART) | 0.24 |
| Inhalační, místní, akutní | 9.6 mg/m³ (ART) | 0.96 |

**5.3.11. Expozice pracovníků: Outdoor use; Non-industrial spraying (PROC 11)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 1.2 mg/m³ (ART) | 0.24 |
| Inhalační, místní, akutní | 9.6 mg/m³ (ART) | 0.96 |

**5.3.12. Expozice pracovníků: Use as laboratory reagent (PROC 15, PROC 26)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.35 mg/m³ (TRA Workers 3.0) | 0.07 |
| Inhalační, místní, akutní | 1.4 mg/m³ (TRA Workers 3.0) | 0.14 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**5.3.15. Expozice pracovníků: Use of functional fluids in small devices (PROC 20)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.7 mg/m³ (TRA Workers 3.0) | 0.14 |
| Inhalační, místní, akutní | 2.8 mg/m³ (TRA Workers 3.0) | 0.28 |

**5.4. Pokyny následnému uživateli ke zhodnocení, zda pracuje v mezích stanovených scénářem expozice**

Pokyn: 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.

**Kapitola 6. ES 6: Spotřebitelské použití; Různé výrobky (PC 0, PC 2, PC 4, PC 12, PC 16, PC 27, PC 35, PC 37)**

**6.1. Část názvu**

Název scénáře expozice: Consumer use; Indoor or outdoor use

Kategorie produktu: Jiné (PC 0), Adsorpční látky (PC 2), Nemrznoucí směsi a odmrazující výrobky (PC 4), Hnojiva (PC 12), Teplovodivé kapaliny (PC 16), Přípravky na ochranu rostlin (PC 27), Prací a čisticí prostředky (PC 35), Přípravky pro úpravu vody (PC 37)

|  |  |
| --- | --- |
| **Životní prostředí** |  |
| 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 |
| **Spotřebitel** |  |
| 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. Podmínky použití ovlivňující expozici**

**6.2.1. Omezení expozice spotřebitelů: Dust suppressant; No spraying (PC 0)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.2. Omezení expozice spotřebitelů: Dust suppressant; Spraying (PC 0)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| 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* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.2.3. Omezení expozice spotřebitelů: *Humidity adsorbants* (PC 0)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.4. Omezení expozice spotřebitelů: *Cement/concrete/mortar* (PC 0)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.5. Omezení expozice spotřebitelů: Adsorbents (PC 2)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.6. Omezení expozice spotřebitelů: Anti-freeze and de-icing products; No spraying (PC 4)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| 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* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.7. Omezení expozice spotřebitelů: Anti-freeze and de-icing products; Spraying (PC 4)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| 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* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.2.8. Omezení expozice spotřebitelů: Fertilizers; No spraying (PC 12)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.9. Omezení expozice spotřebitelů: Fertilizers; Spraying (PC 12)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| 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* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.2.10. Omezení expozice spotřebitelů: Heat transfer fluids (PC 16)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.11. Omezení expozice spotřebitelů: Plant protection products; No spraying (PC 27)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.12. Omezení expozice spotřebitelů: Plant protection products; Spraying (PC 27)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| 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* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.2.13. Omezení expozice spotřebitelů: Water treatment chemicals (PC 37)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| *Covers exposure via inhalation route* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.14. Omezení expozice spotřebitelů: Washing and cleaning products; No spraying (PC 35)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| Covers concentrations up to 100 % |
| *Solid, medium dustiness. Covers also liquid form* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers use up to 24 h* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |
| **Další podmínky ovlivňující expozici spotřebitelů** |
| Release area <= 125 m2 |

**6.2.15. Omezení expozice spotřebitelů: Washing and cleaning products; Spraying (PC 35)**

|  |
| --- |
| **Vlastnosti přípravku (předmětu)** |
| 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* |
| **Použité množství, frekvence a délka použití / trvání expozice** |
| Covers use up to 1 events per day |
| *Covers 10 minutes spraying application* |
| **Informace a doporučení ohledně chování pro spotřebitele** |
| *Requires room with good ventilation* |
| *Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.* |

**6.3. Odhad expozice a odkaz na jeho zdroj**

**6.3.1. Expozice spotřebitelů: Dust suppressant; No spraying (PC 0)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.2. Expozice spotřebitelů: Dust suppressant; Spraying (PC 0)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Inhalační, místní, akutní | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.3.3. Expozice spotřebitelů: *Humidity adsorbants* (PC 0)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.4. Expozice spotřebitelů: *Cement/concrete/mortar* (PC 0)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.5. Expozice spotřebitelů: Adsorbents (PC 2)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

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

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Inhalační, místní, akutní | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.3.8. Expozice spotřebitelů: Fertilizers; No spraying (PC 12)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.9. Expozice spotřebitelů: Fertilizers; Spraying (PC 12)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Inhalační, místní, akutní | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.3.10. Expozice spotřebitelů: Heat transfer fluids (PC 16)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.11. Expozice spotřebitelů: Plant protection products; No spraying (PC 27)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.12. Expozice spotřebitelů: Plant protection products; Spraying (PC 27)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Inhalační, místní, akutní | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.3.13. Expozice spotřebitelů: Water treatment chemicals (PC 37)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.14. Expozice spotřebitelů: Washing and cleaning products; No spraying (PC 35)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 5E-3 mg/m³ (ConsExpo) | < 0.01 |
| Inhalační, místní, akutní | 0.01 mg/m³ (ConsExpo) | < 0.01 |

**6.3.15. Expozice spotřebitelů: Washing and cleaning products; Spraying (PC 35)**

| **Cesta expozice a typ účinků** | **Odhad expozice** | **RCR** |
| --- | --- | --- |
| Inhalační, místní, dlouhodobá | 0.687 mg/m³ (ConsExpo) | 0.275 |
| Inhalační, místní, akutní | 0.69 mg/m³ (ConsExpo) | 0.138 |

**6.4. Pokyny následnému uživateli ke zhodnocení, zda pracuje v mezích stanovených scénářem expozice**