

HH-23.1. Occupational scenario for transfer of boron-containing liquid foliar fertilizer

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| Systematic title based on use descriptor | PROCs | Transfer of substance or preparation into small containers (dedicated filling line, including weighing). |
| | 9 | |

HH-23.2 Controlling worker exposure

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|--|---|---|
| Product characteristics | Liquid, containing between 0.001 and 7 % boron. | |
| Amounts used | Widely varying from tens to hundreds of litres. | |
| Frequency and duration of use | Shift length activity with several refills. | |
| Human factors not influenced by risk management | None | |
| Other given operational conditions affecting workers exposure | Activities take place outdoors or in a well-ventilated area. | |
| Technical conditions and measures at process level (source) to prevent release | None | |
| Technical conditions and measures to control dispersion from source towards the worker | None | |
| Organisational measures to prevent /limit releases, dispersion and exposure | Appropriate training. Regular testing and maintenance of plant and equipment. | |
| Conditions and measures related to personal protection, hygiene and health evaluation | Clothing | - |
| | Gloves | Not required for normal industrial exposure |
| | Eye protection | - |
| | RPE | - |

HH-23.3. Exposure estimation

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|-----------------------------------|--------------------------------------|-------------------------------|---------------------------|------------------|------------|--------------------------|---------------------------------------|--------|
| Human Health Exposure Estimations | INHALATION | | | | | | | |
| | Not relevant, no aerosols are formed | | | | | | | |
| | DERMAL | | | | | | | |
| | | Activity | Source/ Parameters | | RMM | Value mg B/day | RCR DNEL = 4800 mg B/day | |
| | Modelled (MEASE) | Transfer of liquid fertilizer | Physical form | aqueous solution | | - | 0.29 | <0.001 |
| | | | Content | 1 - 5% boron | | | | |
| | | | PROC | 9 | | | | |
| | | | Duration | 15 – 60 min | | | | |
| | | | Use pattern | non dispersive | | | | |
| | | | Handling | non direct | | | | |
| Contact level | intermittent | | | | | | | |

HH-23.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

If the parameters used in the MEASE model outlined above do not reflect conditions at the DU facility, the DU can use MEASE and input the parameters that do reflect conditions at the DU facility to check whether the DU works inside the boundaries set by the ES. Detailed guidance for evaluation of ES can be acquired via your supplier or from the ECHA website (guidance R14, R16).