FASS

Furadantin®

Viatris

Tablett 5 mg

(gula, runda, kupiga, med krysskåra och prägling FV inom bågar, 9 mm)

Kemoterapeutikum mot urinvägsinfektioner

Aktiv substans:

Nitrofurantoin (vattenfri)

ATC-kod:

J01XE01

Läkemedel från Viatris omfattas av Läkemedelsförsäkringen.

Miljöpåverkan

Nitrofurantoin

Miljörisk: Risk för miljöpåverkan av nitrofurantoin kan inte uteslutas då ekotoxikologiska data saknas.
Nedbrytning: Det kan inte uteslutas att nitrofurantoin är persistent, då data saknas.
Bioackumulering: Nitrofurantoin har låg potential att bioackumuleras.

Detaljerad miljöinformation

Detailed background information

Environmental Risk Classification

Predicted Environmental Concentration (PEC)

PEC is calculated according to the following formula:

$PEC(\mu g/L) = (A*10^{9}*(100-R))/(365*P*V*D*100) = 1.5*10^{-6}*A(100-R)$

PEC = 0,05 µg/L

Where:
A = 321,5218 kg (total amount API of nitrofurantoin in Sweden year 2019, data from IQVIA) (Ref. 1).

R = removal rate = 0% (no data available)
P = number of inhabitants in Sweden = $9*10^6$
V (L/day) = volume of waste water per capita and day = 200 (ECHA default) (Ref. 2)
D = factor for dilution of waste water by surface water flow = 10 (ECHA default) (Ref. 2)

Ecotoxicological studies
No ecotoxicological data available.

Degradation
No degradation data available.

Bioaccumulation
An experimentally derived Log K_{ow} of -0,47 (unknown method) (Ref. 3) indicates that nitrofurantoin has low potential for bioaccumulation.

Log K_{ow} <4 which justifies the phrase “Nitrofurantoin has low potential for bioaccumulation”.

Excretion (metabolism)
Excretion of nitrofurantoin occurs via glomerular filtration (ca 20%) and secretion through proximal tubule (ca 80%). Between 30 and 50% of the dose is excreted in urine as active form (ref. 4).

References:

1. Data from IQVIA ”Consumption assessment in kg for input to environmental classification v1 - updated 2020 (data 2019)”.
2. ECHA, European Chemicals Agency. Guidance on information requirements and chemical safety assessment. Ver 2.1, 2011. http://echa.europa.eu/documents/10162/13643/information_requirements_r2_en.pdf
3. Hansch et al. (1995), ChemID+, US National Library of Medicin, National Institutes of Health, http://chem.sis.nlm.nih.gov/chemidplus/chemidheavy.jsp
4. SPC (Summary of Product Characteristics) Furadantin, 2017-12-05, www.fass.se