FASS

Dermovat (Parallellimporterat)

2care4 ApS

Kräm 0,05 %

Inga avvikelser.

Glukortikoider till utvärtes bruk. Extra starkt verkande.

Visa information om det parallellimporterade läkemedlet

Aktiv substans:
Klobetasolpropionat

ATC-kod:
D07AD01

Läkemedel från 2care4 ApS omfattas av Läkemedelsförsäkringen.

Miljöpåverkan

Miljöinformationen för klobetasolpropionat är framtagen av företaget GlaxoSmithKline för Dermovat®

Miljörisk: Användning av klobetasol har bedömts medföra försumbar risk för miljöpåverkan.
Nedbrytning: Klobetasol är potentiellt persistent.
Bioackumulering: Klobetasol har låg potential att bioackumuleras.

Detaljerad miljöinformation

Environmental Risk Classification
Predicted Environmental Concentration (PEC)
PEC is calculated according to the following formula:
PEC (µg/L) = $(A*10^{9}*(100-R))/(365*P*V*D*100) = 1.5*10^{-6}*A(100-R)$
PEC = 9.66×10^{-4} µg/L
Where:
A = 6.44 kg (total sold amount API in Sweden year 2016, data from Quintiles IMS). Reduction of A may be justified based on metabolism data.

R = 0% removal rate (conservatively, it has been assumed there is no loss by adsorption to sludge particles, by volatilization, hydrolysis or biodegradation)
P = number of inhabitants in Sweden = $9 * 10^6$
V (L/day) = volume of wastewater per capita and day = 200 (ECHA default) (Ref. I)
D = factor for dilution of waste water by surface water flow = 10 (ECHA default) (Ref. I)

Predicted No Effect Concentration (PNEC)

Ecotoxicological studies

Green Algae (Scenedesmus subspicatus):
IC50 72 h (growth) > 4,200 µg/L (OECD 201) (Reference 4)
NOEC = 1,400 µg/L

Water flea (Daphnia magna):
Acute toxicity
EC50 48 h (immobility) > 1,400 µg/L (OECD 202) (Reference 3)
NOEC = 400 µg/L

Water flea:
Chronic toxicity
No data

Rainbow Trout (Oncorhyncus mykiss):
Acute toxicity
LC50 96 h (lethality) > 750 µg/L (OECD 203) (Reference 5)
NOEL = 750 µg/L
Chronic toxicity
No data

Other ecotoxicity data:
Microorganisms in activated sludge:
EC50 3 h (inhibition) > 100,000 µg/L @ 3 hrs (OECD 209) (Reference 6)
NOEC = 100 000 µg/L

PNEC = 750/1000 = 0.75 µg/L
PNEC (µg/L) = PNEC (µg/L) = lowest EC50/1000, where 1000 is the assessment factor applied for three short-term EC50s. As EC50 are greater than values the lowest potential EC50 for fish (= 750 µg/L) has been used for this calculation since it is the most sensitive of the three tested species.

Environmental risk classification (PEC/PNEC ratio)

PEC/PNEC = $9.66 \times 10^{-4}/0.75 = 1.29 \times 10^{-3}$, i.e. PEC/PNEC ≤ 0.1 which justifies the phrase “Use of Clobetasol propionate has been considered to result in insignificant environmental risk.”

Degradation

Biotic degradation

Ready degradability:
No data

Inherent degradability:
< 5% primary(removal of parent) degradation in 14 days (OECD 302). (Reference 7)

Abiotic degradation

Hydrolysis:
No data

Photolysis:
No data

Justification of chosen degradation phrase:
Clobetasol propionate is not readily degradable or inherently biodegradable. The phrase “Clobetasol propionate is potentially persistent” is thus chosen.

Bioaccumulation

Partitioning coefficient:
Log Pow = 3.49 (TAD 3.02) (Reference 8)
Log Pow_{calc} = 3.1 (Reference 9)

Justification of chosen bioaccumulation phrase:
Since log Dow < 4 at pH 7, the substance has low potential for bioaccumulation.

Excretion (metabolism)

There are no human data regarding the distribution of corticosteroids to body organs following topical application. Nevertheless, once absorbed through the skin, topical corticosteroids are handled through metabolic pathways similar to systematically administered corticosteroids. They are metabolized primarily in the liver, and are then excreted by the kidneys. In addition, some corticosteroids and their metabolites are also excreted in the bile (Reference 2).

PBT/vPvB assessment

Clobetasol propionate does not fulfil the criteria for PBT and/or vBvP.
All three properties, i.e. ‘P’, ‘B’ and ‘T’ are required in order to classify a compound as PBT (Reference 1).
Clobetasol does not fulfil the criteria for PBT and/or vBvP based on log Dow < 4.

Please, also see Safety data sheets on http://www.msds-gsk.com/ExtMSDSlist.asp

References:

1. ECHA, European Chemicals Agency. 2008 Guidance on information requirements and chemical safety assessment.
2. Clobex (clobetasol propionate) FDA label issued on 2005-11-01
3. Magor SE and Kent SJ. Clobetasol 17-Propionate: Acute Toxicity to Daphnia magna. Report No. BL7712/B. Brixham Environmental Laboratory Limited, June 2004.
4. Magor SE, Kent SJ and Young BE. Clobetasol 17-Propionate: Toxicity to Green Alga Selenastrun capricornutum. Report No. BL7713/B. Brixham Environmental Laboratory Limited, August 2004.
5. Magor SE and Kent SJ. Clobetasol 17-Propionate: Acute Toxicity to Rainbow Trout (Oncoryhynchus mykiss). Report No. BL7714/B. Brixham Environmental Laboratory Limited, June 2004.
6. Swarbrick RH and Smyth DV. Clobetasol 17-Propionate: Effect on the Respiration Rate of Activated Sludge. Report No. BL7715/B. Brixham Environmental Laboratory Limited, May 2004.
7. Magor SE, Kent SJ and Young BE. Clobetasol 17-Propionate: Determination of Inherent Biodegradability (Zahn-Wellens Test). Report No. BL7712/B. Brixham Environmental Laboratory Limited, August 2004.

8. MSDS ID 25278. Clobetasol propionate. GlaxoSmithKline plc, February 2011.
9. ACD /LogD. May 2012. Advanced Chemistry Development, Inc.