

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2011-0927
Application: B.1.2 - New Source New Registrant
Product: Formic Acid 85%
Registration Number: 30107
Active ingredients (a.i.): Formic Acid
PMRA Document Number : 2541503

Purpose of Application

The purpose of this application was to register a new source of formic acid, the technical product Formic Acid 85 %. Formic Acid 85 % is used in the manufacturer of the end use product Formic Acid 65 % (Reg. No. 30108) which is used as a treatment against varroa mites and tracheal mites in honey bee colonies.

Chemistry Assessment

Common Name: formic acid
CAS Chemical Name: formic acid
IUPAC Chemical Name: methanoic acid

Formic Acid 85 % Technical has the following properties:

Property	Result
Colour and physical state	Colourless to yellow liquid
Nominal concentration	85%
Odour	pungent
Specific gravity	1.195-1.216
Vapour pressure	24.2 hPa at 20°C
pH	2.2
Solubility in water	Soluble
n-Octanol/water partition coefficient (K_{ow})	Log K_{ow} = -1.9 at 23°C

The chemistry requirements for Formic Acid 85 % have been completed.

Health Assessments

Formic Acid 85 % is used in the manufacturer of the end use product Formic Acid 65 % (Reg. No. 30108) which is used as a treatment against varroa mites and tracheal mites in honey bee colonies.

Formic acid 85 % is considered to be moderately acutely toxic via the oral route. As a volatile acid with a pH of 2, formic acid is extremely corrosive; therefore, it is considered to be highly acutely toxic via the dermal and inhalation routes of exposure. It is also considered to be corrosive to the skin and eyes, and is a potential skin sensitizer. Based on available information, and recognizing the long history of use of formic acid in foods and a lack of reporting of adverse effects of this nature, it is expected that exposure to formic acid from the use in honey bee colonies is not likely to result in prenatal developmental toxicity, mutagenicity and/or genotoxicity. The primary endpoint of concern for formic acid is its corrosiveness, and there are no other reported toxicological endpoints of concern associated with acute or short-term exposure to formic acid.

Environmental Assessment

The use of formic acid for control of mites in honey bee colonies is unlikely to result in significant environmental exposure. The active ingredient will be contained within the physical colony container where it will readily volatilize and dissipate; no liquid leakage to the environment is expected under these conditions.

Value Assessment

Value assessment not required for this application.

Conclusion

PMRA has reviewed information provided in support of the product as described above. Based on this review, Formic Acid 85 % is acceptable for registration.

References

2048222	Technical Data Sheet, DACO: 2.16 CBI
2048223	Declaration of [CBI removed], DACO: 2.13.4 CBI
2053192	[CBI removed] content

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