

Aluminium silicate (Kaolin)

SURROUND® WP CROP PROTECTANT

Document N4

Relevance of metabolites in ground water

**Registration Dossier according to Regulation 1107/2009
EU Format**

Version history¹

Date	Data points containing amendments or additions and brief description	Document identifier and version number
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¹ It is suggested that applicants adopt a similar approach to showing revisions and version history as outlined in SANCO/10180/2013 Chapter 4 How to revise an Assessment Report

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1 INTRODUCTION

Kaolin (Aluminium silicate) is a type of clay mineral, a natural substance present in soil, surface water, sediment and ground water.

2 FATE AND BEHAVIOUR IN THE ENVIRONMENT

Aluminium silicate (kaolin) is extremely stable. The deposits that are being mined today were formed over 25 million years ago. Aluminium silicate is insoluble, photolytically stable and inert even to mineral acids and bases. Aluminium silicate (kaolin) is a common clay that is found in most soils and aquatic sediments the world over.

Kaolin (aluminium silicate) is a final erosion product of silicate rocks such as basalt and granite. Deposits generally are of two types, in-situ and sedimentary. In-situ, such as the deposits in Cornwall, UK, are caused by in place alteration of feldspar minerals in granite. Sedimentary deposits are formed by weathering alteration of feldspars in rocks such as granite and basalt, subsequent translocation via erosion downstream, and deposition into sedimentary rock deposits.

There are no metabolites of kaolin (aluminium silicate). Short of being metamorphosed by high heat and pressure deep within the Earth, kaolin is stable. It is not broken down into other substances. Kaolin containing rocks may be eroded liberating the kaolin however as an inert material the kaolin ends up being re-deposited.

Since kaolin is a non-degradable natural component of the environment a waiver is requested for all environmental fate studies.

2.1 Summary of Degradation pathway in Soil

Not applicable, kaolin does not degrade in soil. See document M-CA Section 7 for waiver request.

2.2 Summary of Identification of Metabolites in Soil

Not applicable, kaolin does not degrade in soil. See document M-CA Section 7 for waiver request.

3 RELEVANCE OF METABOLITES IN GROUNDWATER

Not applicable, kaolin does not degrade in soil, water or sediment. See document M-CA Section 7 for waiver request.

4 REFERENCES

Bergaya F. & G. Lagaly (Eds.), 2013, Handbook of Clay Science Second edition. *Development in Clay Science* 5. Elsevier, 1686pp (2 volumes).