

Hydrolysed Proteins

DOCUMENT M-CA, Section 3

FURTHER INFORMATION ON THE ACTIVE SUBSTANCE

Version history¹

Date	Data points containing amendments or additions and brief description	Document identifier and version number
21/02/2020	Discussion on possible occurrence of pesticide degradates from drinking water treatments in CA 3.11 highlighted in yellow	Hydrolysed Proteins document M-CA 3

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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CA 3 FURTHER INFORMATION ON THE ACTIVE SUBSTANCE

CA 3.1 Use of the Active Substance

Hydrolysed Proteins are intended to be used in agriculture on a broad range of crops.

CA 3.2 Function

Hydrolysed Proteins are used as insect attractants in agriculture.

CA 3.3 Effects on Harmful Organisms

Hydrolysed Proteins have no harmful effect over the insects and in particular over the fruit flies. The hydrolysed proteins are mainly nutritional products. They act as insect attractant in order to trap them or to make easier the contact with the insecticide.

CA 3.4 Field of Use Envisaged

Hydrolysed Proteins are intended to be used in agriculture in baits for trapping the insects and in mixture with different insecticides to increase their efficacy.

CA 3.5 Harmful Organisms Controlled and Crops or Products Protected or Treated

Hydrolysed Proteins have an attractant effect against:

- Mediterranean Fruit flies (*ceratitis capitata*)
- Flies of olive trees (*Bactrocera oleae*)
- Flies of the *Rhagoletis* type

CA 3.6 Mode of Action

The mode of action of the attractant effect is based on the decomposition and putrefaction of the organic matter process. In this process, a compound called as putrescine is released, among others, and has a characteristic odour able to attract the insects.

The control and elimination of insects is carried out by the insecticide or because the insects cannot escape from the traps.

The active substance Hydrolysed Proteins is a natural substance biodegradable. The metabolites resulting from the decomposition process are volatiles substances (ammonia, carbon dioxide) or organic molecules highly biodegradables that do not have harmful effect in the environment.

The environmental temperature is the most important factor that affects the speed of the decomposition.

CA 3.7 Information on Occurrence or Possible Occurrence of the Development of Resistance and Appropriate Management Strategies

The nature of the Hydrolysed Proteins rules out any possibility of the development of resistance. The proteins are necessary elements for the nourishment of living beings. The digestive system hydrolyses the protein for their assimilation. The process is continuous and does not generate resistance in the living beings.

CA 3.8 Methods and Precautions Concerning Handling, Storage, Transport or Fire

Precautions for safe handling: The usual precautions for the handling of a non-dangerous product must be observed. Avoid contact with skin and eyes. Do not eat or drink during the handling of the product.

Conditions for safe storage: The packaging should remain closed, in a cool, aired and dry place and should be protected from frost. Avoid contact with sun light.

Fire-fighting measures:

- Extinguishing media: All conventional means of extinction are appropriate (water, carbon dioxide, etc.)
- Special hazards arising from the substance or mixture: None.
- Advice for fire-fighters: No specific fire-fighting protection is required.

CA 3.9 Procedures for Destruction or Decontamination

Hydrolysed proteins are of low toxicity and are biodegradable. Thus, no particular procedure for destruction or decontamination is needed. Contaminated material may be rinsed with clear water.

CA 3.10 Emergency Measures in Case of an Accident

The usual precautions for a non-dangerous product must be observed. Use sand or soil to avoid leakage expansion. Collect as much released product as possible. Absorb spill with inert material (soil, sand).

First aid measures:

- Eye contact: Rinse thoroughly with water.
- Inhalation: Go to fresh air. If symptoms appear, seek medical attention.
- Ingestion: Rinse the mouth with a lot of water. Consult a doctor if you feel unwell.
- Skin contact: Wash the affected area with water and soap, rinse thoroughly.
- Most important symptoms and effects, both acute and delayed: There is no knowledge of important symptoms and effects
- Indication of any immediate medical attention and special treatment needed: Not known.

CA 3.11 Possible occurrence of pesticide degradates from drinking water treatments.

In response to the RMS request, the applicant wants to highlight that Hydrolysed proteins are naturally occurring compounds whose degradation leads to simple metabolites called amino acids that are abundant organic molecules in living cells.

Furthermore, amino acids from hydrolysis of animal proteins are used as fertilisers in Spain according to the Real Decreto 506/2013 (please refer to p 35, group 4.1 called “Aminoácidos”). In addition, hydrolysed proteins of category 3 materials is part of the proposal of the future new EU regulation for fertilisers products (please refer to the proposal of December, the 4th, page 83).

Therefore, these compounds are considered to be of low risk for soil and water compartments and considering that they are widely used as fertilisers in Europe, the amount of hydrolysed proteins added to the environmental compartments linked to the application as plant protection product is considered to be negligible in comparison to the amounts derived from the use as fertilisers.

The applicant is of the opinion that this information provide an argumentation strong enough to justify the exemption of further studies, considered as unnecessary from a scientific and rational point of view.

However, for completeness purpose, on the basis of the calculations performed in the M-CP 9 section of the product SVMA14-004 (please refer to document “SVMA14-004 document M-CP 9”, point B 9.2.5) the maximal instantaneous PEC_{sw} value following the use of SVMA14-004 is considered to be 43.800 µg/L.

From the result of the calculation performed in M-CP 9 section, it can be therefore considered that the use of the product SVMA14-004 will not induce any significant load of hydrolyzed proteins via spray drift. Moreover, this potential load of hydrolyzed proteins via spray drift is far below the agreed thresholds for waters considered suitable for drinking water preparation stated in the Water Framework Directive and in the Nitrate Directive (50 mg NO₃/L in the Nitrates Directive 91/676/EEC, for example).

Therefore, taking into account the water treatment processes involved at the beginning of the treatment of drinking water, and more particularly coagulation/flocculation which removes the organic carbon, and at the end, the disinfection of the drinking water by chlorination, no negative impact is expected on water treatment processes following the spraying of hydrolysed proteins according to the intended GAPs.