ECOLOGICAL CERTIFICATE

RECKLI®
DESIGN YOUR CONCRETE

RECKLI® CR Type N-WB (all grades)

concrete surface retarder – negative process

APPLICATIONS AND DESCRIPTION

RECKLI CR Type N-WB is an aqueous formulation with setting retarders. It is used for the generation of exposed aggregate surfaces in the production of concrete parts.

PRODUCT COMPOSITION

RECKLI CR Type N-WB is a mixture of setting retarders, a special binder and additives in water.

ECOLOGICAL EVALUATION OF THE CONTENTS

Retarder component 1

This retarder component is a natural substance derived from renewable raw materials. It is not classified as hazardous material according to regulation 1272/2008EC (CLP). The classification according to the German Ordinance on Facilities for the Handling of Substances Hazardous to Water (AwSV) is: „not water contaminating“. The raw material meets the purity criteria for food additives according to FDA. The manufacturer assessed the commodity as easily and quickly biodegradable.

Retarder component 2

This retarder component is also a natural substance derived from renewable raw materials. It is not classified as hazardous material according to regulation 1272/2008/EC (CLP). The classification according to the German Ordinance on Facilities for the Handling of Substances Hazardous to Water (AwSV) is: „slightly water contaminating“ (WGK 1). The raw material meets the purity criteria on food additives in Directive 2012/231/EC and FCC VIII. The manufacturer assessed the raw material to be readily biodegradable and declares the biological degradability as exceeding 80 % in 28 days.

Dye

The dye composition is classified as not hazardous material according to regulation 1272/2008/EC (CLP). The pigments present (yellow iron oxide, red iron oxide, brown iron oxide, black iron oxide) based on iron or sparingly soluble compounds such as titanium (IV) oxide, chromium (III) oxide (no toxic chrome

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green). None of the pigments used is harmful or hazardous to water. We only use health-acceptable inorganic and organic pigments.

Defoamer

The defoamer is classified as not hazardous material according to regulation 1272/2008/EC (CLP). It meets the criteria of regulation 10/2011/EC. The manufacturer classifies the component as slightly water contaminating according to AwSV. The active substance is readily biodegradable according to OECD criteria.

Binder

The binder is classified as not hazardous material according to regulation 1272/2008/EC (CLP). Due to its constitution it is readily biodegradable. There is no evidence for water hazards.

Thixotropic additive

This component is a high molecular substance derived from renewable sources, which is not classified as hazardous material according to regulation 1272/2008/EC (CLP). The classification according to the German Ordinance on Facilities for the Handling of Substances Hazardous to Water (AwSV) is: „slightly water contaminating“. The raw material meets the purity criteria for food additives according to directive 2008/84/EC. Following the manufacturer’s information, it is easily biodegradable and not bioaccumulative.

Conservatives

The combination of biocides is classified as corrosive, skin sensitizing and toxic to aquatic organisms on long terms (H314 - H318 - H317 - H411). It is registered in the EC under No. N-35760 / N-35761 / N-35762 / N-35763. It meets the criteria of BfR XXXVI und FDA CFR 176.170. In the given concentration a good environmental sustainability can be assumed.

CONCLUSION

In Germany and several other European countries, municipal and industrial waste water is usually purified in biological wastewater treatment plants before it enters the receiving waters (rivers). Depending on biodegradability (destruction of chemical structure) or eliminability (mechanical separation or adsorption on sludge) of wastewater constituents remains a more or less residual stress, which must be met in the receiving water by way of self-purification. For an ecological risk assessment therefore information on the biodegradability and elimination are important criteria.

The degradability of the product is done by calculation based on data mining of all individual organic components, taking into account the proportions in this

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product. If the formal limit of the OECD's classification as "readily biodegradable" (BOD/COD › 60%) is exceeded, this product is classified as biodegradable. Here, however, it is still possible that some components present in small quantities do not reach this limit, but by others in larger quantity contained readily degradable substances are covered. We therefore inform you about the amount of these smaller units, by differentiating our classification for the summary quality rating.

The ingredients are classified as "not readily biodegradable" (BOD/COD ‹ 60%) are, however, eliminated in sewage treatment plants almost as well as communal mixed water, we also inform you.

RECKLI CR Type PV receives the following vote:

When properly processed, RECKLI CR Type N-WB including its residues in the wash water is readily eliminable in wastewater treatment plants.

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