



Safety Statement

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Product Name: AC Split End Complex MSX

Code: 20375MSX

INCI Name: Hydroxypropyltrimonium Hydrolyzed Rice Protein/Siloxysilicate & *Oryza Sativa* (Rice) Extract

AC Split End Complex MSX is manufactured by first processing (mechanical grinding/milling) of *Oryza sativa*. The plant matter is extracted under aqueous, controlled conditions and then filtered.

The hydroxypropyltrimonium hydrolyzed *Oryza sativa* is simultaneously reacted with the appropriate reagent to form a siloxysilicate. Both solutions are then blended together and refiltered as needed.

Oryza sativa is of natural origin. It is also used commonly in food and nutritional wellness products.¹ Therefore *Oryza sativa* derived materials may be classified as Generally Recognized as Safe (GRAS) according to the FDA's Federal Food, Drug and Cosmetic Act.²

The act states:

Any substance that is intentionally added to food is a food additive, that is subject to premarket review and approval by FDA, unless the substance is generally recognized, among qualified experts, as having been adequately shown to be safe under the conditions of its intended use, or unless the use of the substance is otherwise excluded from the definition of a food additive.²

The Cosmetic Ingredient Review (CIR) conducted a safety assessment of various types of *Oryza sativa* (rice) products, including the extract, oil, bran, germ, and starch, among others. The report concluded that all types of *Oryza sativa* forms studied are safe for use in cosmetic preparations.³

There is limited safety information available for hydroxypropyltrimonium hydrolyzed rice protein/siloxysilicate. However, the CIR reviewed the safety of over 100 different polysaccharide gums, including hydroxypropyltrimonium hydrolyzed corn and wheat starch. The panel concluded that the majority of these polysaccharide gums, especially those that are naturally derived, are safe in the present practices of use and concentrations in cosmetics.⁴

Lastly, the CIR performed a safety assessment of silylates and surface-modified siloxysilicates as used in cosmetics. The ingredients investigated in this study were based on amorphous (synthetic amorphous silica and silicates). The materials were organo-silane hybrid materials, modified to have desired properties for their use in cosmetics, similar to the siloxysilicate formed during the manufacture of AC Split End Complex MSX. The CIR panel concluded that these materials are safe

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as used when formulated and delivered in the final product and are not irritating or sensitizing to the respiratory tract.⁵

AC Split End Complex MSX was tested using *in vitro* dermal and ocular irritation models. This product was found to be non-irritating in both models. The full report is attached for reference.

The above information supports the safety of AC Split End Complex MSX in cosmetic applications at use levels of 1.0 – 5.0%. No further testing is required at this time.

1. Begun, R., "A Global Grain: The Health Benefits and Culinary Uses of Rice." Food & Nutrition Magazine (2013). <http://www.foodandnutrition.org/May-2013/A-Global-Grain-The-Health-Benefits-and-Culinary-Uses-of-Rice/>
2. Federal Food, Drug and Cosmetic Act. U.S Food and Drug Administration. www.fda.gov.
3. "Amended Final Report on the Safety Assessment of Oryza Sativa (Rice) Bran Oil, Oryza Sativa (Rice) Germ Oil, Rice Bran Acid, Oryza Sativa (Rice) Bran Wax, Hydrogenated Rice Bran Wax, Oryza Sativa (Rice) Bran Extract, Oryza Sativa (Rice) Extract, Oryza Sativa (Rice) Germ Powder, Oryza Sativa (Rice) Starch, Oryza Sativa (Rice) Bran, Hydrolyzed Rice Bran Extract, Hydrolyzed Rice Bran Protein, Hydrolyzed Rice Extract, and Hydrolyzed Rice Protein". Cosmetic Ingredient Review. <http://online.personalcarecouncil.org/ctfa-static/online/lists/cir-pdfs/pr403.pdf>
4. "Safety Assessment of Polyssaccharide Gums as Used in Cosmetics". Cosmetic Ingredient Review. <http://online.personalcarecouncil.org/ctfa-static/online/lists/cir-pdfs/FR680.pdf>
5. "Final Safety Assessment of Silylates and Surface Modified Siloxysilicates as Used in Cosmetics". Cosmetic Ingredient Review. <http://www.cir-safety.org/sites/default/files/silyla092011final.pdf>

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