

RSPO Rules for Home and Personal Care Derivatives

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1. General Terms

This procedure shall serve as a guiding structure to reflect on specifics of commonly used Oleochemicals and their derivatives produced from natural oils and fats with focus on palm and palm kernel oil. It has been proposed by the industry that the most immediate process to encourage rapid acceptance of RSPO CSPO in the personal care derivatives market is to initially utilize the RSPO approved Certificate System* until physical supply chains are more common. The clear and ultimate intent however is to deliver RSPO CSPO in a physical supply chain manner as soon the supply chains have achieved the necessary structure.

It is therefore assumed that this paper will serve the purpose of enabling the calculation of the necessary amount of the RSPO approved Certificates to contribute to the initial development of RSPO certified palm products. This calculation tool shall serve as a guideline during the aforementioned transition to physical supply chains. This shall not reflect any prejudice that the use of certificates is the longer term option of choice for these derivatives, but rather reflects the necessity of having a standard only for so long as the transition is not feasible due to limited availability.

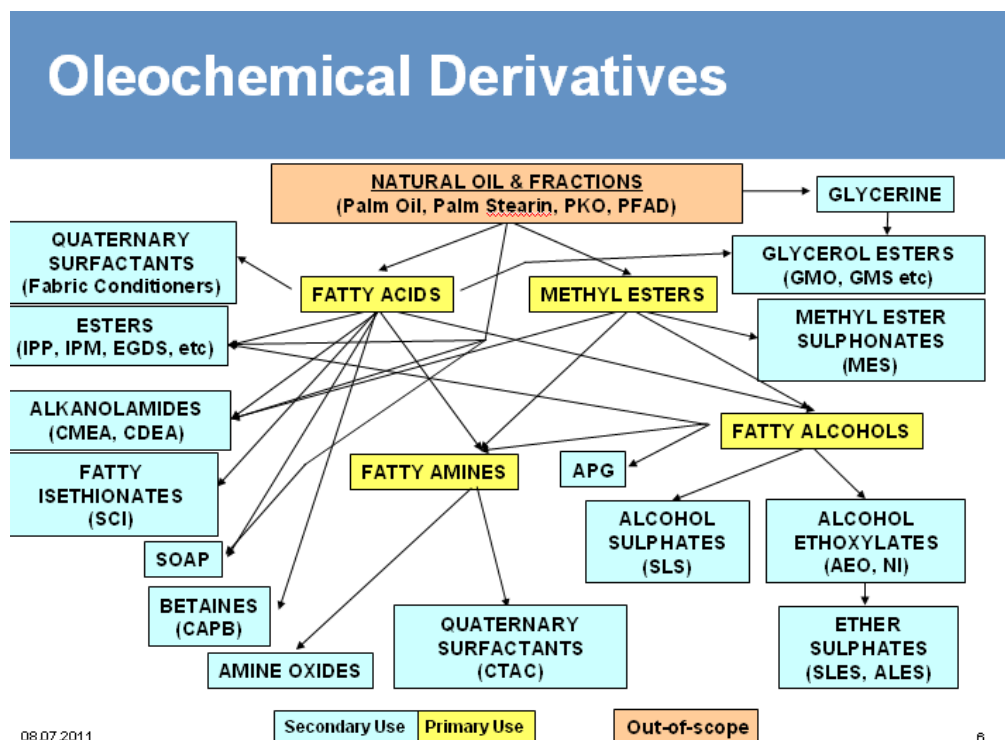
This paper shall be reviewed on a biennial basis to reflect changing market conditions during the transition from conventional to RSPO certified palm products. Members and stakeholders are invited to share their experiences with this guideline to support the improvement process of this process through the RSPO Trade and Traceability Working Group Sub-Group.

This paper shall not claim to cover all options of derivatives for the HPC market. Therefore this shall leave room for a case by case dialogue between seller and buyer of products to reflect the specifics of technologies and supply chains, for presentation to RSPO and your Greenpalm or Chain of Custody auditor. Case by case dialogue and decisions shall be properly and transparently documented internally to allow for auditor scrutiny.

*for further details go to greenpalm.org

2. Scope

The scope has been limited to the major primary and secondary Oleochemicals and their derivatives to minimize complexity.



3. Calculation Scheme

For clarification purposes this calculation scheme focuses on derivatives that contain a majority of C8-C18 C-Chains, products with other dominant C-Chains > C18 are out of scope as they will not be derived from palm and palm kernel oil.

3.1. Feedstock Identification

Due to the interchangeability of feedstocks to produce the same derivative, the choice of feedstock shall be determined based on the dominating carbon chain within the derivative. In particular for the primary use products (Fatty Acids, Methyl esters, Fatty Alcohols, Fatty Amines) the applicable feedstock shall be determined as follows:

3.1.1. Fatty Acid, Methyl esters, Fatty Alcohols

If the C-Chain distribution is > 65 % in the range C8 – C14, the derivative shall be considered to be produced from palm kernel oil.

If the C-Chain distribution is > 95 % in the range C16 – C18, the derivative shall be considered to be produced from palm oil.

Other C-Chain length distributions shall be considered as derived from a blend of palm and palm kernel oil, their raw material reference shall be palm oil.

3.1.2. Fatty Amines

Tertiary Amines shall be considered to be derived from palm kernel oil, reflecting their primary production from Fatty Alcohol C1214.

Primary Amines shall be considered in line with Fatty Acids and Methyl esters.

3.1.3. Optional non palm based feedstocks

For some oleochemicals, the feedstock source cannot be fully harmonized.

For fatty acids and fatty alcohols the temporary optional use of palm kernel vs. coconut oil cannot be determined. Suppliers may suggest reflecting the global average produce of coconut and palm kernel oil as a long term average and this should be discussed with your Greenpalm or Chain of Custody auditor. Therefore this shall leave room for a case by case dialogue between seller and buyer to reflect the specifics of supply chains.

For Glycerine the optional use of non palm based material is still significant. Only about one third of the available crude Glycerine shall be from palm based triglycerides. Suppliers may suggest to reflect the global average product of palm- and palm kernel oil vs. all other oils as a long term average and this should be discussed with your Greenpalm or Chain of Custody auditor. Therefore this shall leave room for a case by case dialogue between seller and buyer to reflect the specifics of supply chains.

3.2. Calculation Method

The table under 3.3. sets the conversion factors for the most commonly used Oleochemicals and derivatives. For basis Oleochemicals the 1:1 rule shall apply as their molecular weight does not differ significantly from the precursor vegetable oils.

For all other derivatives, the number of certificates required would be in accordance with the basic oleochemical content of the material using chemical stoichiometric principles. In addition, glycerine will also be covered under the 1:1 rule as this represents the major yield loss in producing oleochemicals from their precursor oils. Examples of conversion factors for some commonly used palm-derivatives are given in 3.3.

3.3. Conversion Factors Additional material added via updated RSPO rules approved by EB July 2013

This table shall serve as a guiding structure for the commonly used Oleochemicals and derivatives.

Index	Material	Conversion Factor
1	Fatty Acids	1.0
2	Fatty Alcohols	1.0
3	Methyl Esters	1.0
4	Fatty Amines	1.0
5	Glycerine	1.0
6	Cocamidopropyl Betaine	0.6
7	Sodium Lauryl Sulfate	0.7
8	Sodium Laureth-1 Sulfate	0.6
9	Sodium Laureth-2 Sulfate	0.5
10	Sodium Laureth-3 Sulfate	0.5
11	Sodium Stearate	0.9
12	Sodium Palm Kernelate	0.9
13	Laureth-7	0.4
14	Steareth-7	0.8
15	Cocamide MEA	0.8
16	Cocamide DEA	0.6
17	Stearamidopropyldimethylamine	0.7
18	Cetyltrimethylammonium chloride	0.8
19	Isopropyl Esters (e.g. IPM, IPP)	0.8
21	Caprylic/Capric Triglyceride (e.g. MCT)	1.0
22	Fatty Isethionate (e.g. Sodium Cocyl Isethionate)	0.6
23	Alkylpolyglycoside	0.4
24	Glycerol Esters (Mono-, Di- and Triglycerides)	1.0
25	Polyglycerol Esters	1.0
26	Sorbitan Monoglyceride	0.7
27	Sorbitan Triglyceride	0.9
28	Polysorbate 60 (Ethoxylated SMS), Polysorbate 80 (Ethoxylated SMO)	0.2
29	Polysorbate 65 (Ethoxylated STS)	0.5
30	Propylene Glycol Monoester	0.9
31	Lactylated Monoglycerides	0.8
32	Metallic Salts of Lactylic Esters of Fatty Acids (Sodium Stearoyl Lactylate, Calcium Stearoyl Lactylate)	0.6
33	Acetylated Monoglycerides	0.9
34	Succinylated Monoglycerides	0.8
35	Ethoxylated Monoglycerides (Polyglycerate 60)	0.8
36	Sucrose esters of fatty acids	0.5
37	Diacetyltartaric acid esters of monoglycerides (DATEM)	0.6
38	Monoglyceride citrate	0.7
39	Stearoyl Lactylic Acid	0.7
40	Stearyl Tartarate	0.4
41	Sodium stearoyl Fumarate	0.7
42	Carboxylic acid Soap	0.9
43	N-Butyl Esters	0.8
44	2-Ethyl Hexyl Esters	0.7
45	TMP Esters (TMP C8-C10 triester)	0.5
46	Ethylene Glycol Monoesters (EGMS)	0.9
47	Ethylene Glycol Diesters (EGDS)	0.9

^aBased on material at 100% active (excluding water/solvent)

Items 1 – 23 are adopted from the approved RSPO Rules for Home and Personal Care Derivatives