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ANNEX

ANNEX

to the

COMMISSION REGULATION

amending the Annex to Regulation (EU) No 231/2012 as regards mono- and diglycerides of fatty acids (E 471)

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In the Annex to Regulation (EU) No 231/2012, the entry for food additive E 471 MONO-AND DIGLYCERIDES OF FATTY ACIDS is replaced by the following:

'E 471 MONO- AND DIGLYCERIDES OF FATTY ACIDS

Synonyms	
Definition	Mono- and diglycerides of fatty acids consist of mixtures of glycerol mono-, di- and tri-esters of fatty acids occurring in food oils and fats. They may contain small amounts of free fatty acids and glycerol.
	Glycerol used for the manufacture of mono- and diglycerides of fatty acids should comply with the specifications for E 422. E 471 shall be produced from fats and oils complying with Union food safety requirements for edible fats and oils.
Einecs	
Chemical name	
Chemical formula	
Molecular weight	
Assay	Content of mono- and di-esters: not less than 70% Content of erucic acid, including erucic acid bound in the mono/diglyceride: Not more than 0,2 % (only if added to food for infants and young children) Not more than 0,5% (for all uses except for foods intended for infants and young children)
Description	The product varies from a pale yellow to pale brown oily liquid to a white or slightly off-white hard waxy solid. The solids may be in the form of flakes, powders or small beads.
Identification	
Infrared absorption spectrum	Characteristic of a partial fatty acid ester of a polyol

Test for glycerol	Passes test
Test for fatty acids	Passes test
Solubility	Insoluble in water, soluble in ethanol and toluene at 50 °C
Purity	
Water content	Not more than 2 % (Karl Fischer method)
Acid value	Not more than 6
Free glycerol	Not more than 7 %
Polyglycerols	Not more than 4 % diglycerol and not more than 1 % higher polyglycerols both based on total glycerol content
Arsenic	Not more than 0,1 mg/kg
Lead	Not more than 0,1 mg/kg
Mercury	Not more than 0,1 mg/kg
Cadmium	Not more than 0,1 mg/kg
Sum of 3- monochloropropanediol (3-MCPD) and 3- MCPD fatty acid esters, expressed as 3-MCPD	Not more than 0,75 mg/kg (only if added to food for infants and young children) Not more than 2,5 mg/kg (for all uses except for foods intended for infants and young children)
Glycidyl esters of fatty acids, expressed as glycidol	From [the date of the entry into force of this Regulation] until [6 months after the date of publication of this Regulation], not more than 5 mg/kg if added to food for infants and young children) and not more than 10 mg/kg for all other uses. From [6 months after the date of publication of this Regulation],

	not more than 5 mg/kg for all uses.
Total glycerol	Not less than 16 % and not more than 33 %
Sulphated ash	Not more than 0,5 % determined at 800 ± 25 °C
Soap	-

Purity criteria apply to the additive free of sodium, potassium and calcium salts of fatty acids, however these substances may be present up to a maximum level of 6 % (expressed as sodium oleate)'.