

EN

ANNEX

Identification number of the additive	Name of the holder of authorisation	Additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	End of period of authorisation
						mg of active substance/kg of complete feedingstuff with a moisture content of 12%			
Category: Sensory additives. Functional group: Flavouring compounds									
2b14005		2,3-Diethylpyrazine	Additive composition 2,3-Diethylpyrazine Characterisation of the active substance 2,3-Diethylpyrazine Produced by chemical synthesis Purity: min. 97% assay Chemical formula: C ₈ H ₁₂ N ₂ CAS number: 15707-24-1 FLAVIS No: 14.005 Method of analysis ⁽¹⁾ For the determination of 2,3-diethylpyrazine in the feed additive and in feed flavouring premixtures: Gas chromatography mass spectrometry with retention time locking GC-MS-RTL.	All animal species	-	-	-	1. The additive shall be incorporated into the feed in the form of a premixture of flavourings. 2. In the directions for use of the additive and premixtures, the storage and stability conditions shall be indicated. 3. The recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12% shall be: – 0.1 mg/kg for pigs and poultry – 0.5 mg/kg for other species and categories. 4. On the label of the additive the following shall be indicated: "Recommended maximum content of the active substance of complete feedingstuff	[Publication Office insert date 10 years from the date of entry into force of the Regulation]

								<p>with a moisture content of 12%:</p> <ul style="list-style-type: none"> – 0.1 mg/kg for pigs and poultry. – 0.5 mg/kg for other species and categories". <p>5. The functional group, the identification number, the name and the added amount of the active substance shall be indicated on the label of the premixtures and in the labelling of feed materials and compound feedingstuffs, if the following contents of the active substance in complete feedingstuff with a moisture content of 12% are exceeded:</p> <ul style="list-style-type: none"> – 0.1 mg/kg for pigs and poultry – 0.5 mg/kg for other species and categories. <p>6. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks by inhalation, dermal contact or eyes contact. Where those risks cannot be eliminated or reduced to a minimum by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including breathing protection, safety glasses and gloves.</p>	
2b14025		6-Methoxy-3-methylpyrazine	<p><i>Additive composition</i> 2,5 or 6-Methoxy-3-methylpyrazine</p> <p><i>Characterisation of the active substance</i> 2,5 or 6-Methoxy-3-methylpyrazine Produced by chemical synthesis Purity: min. 97% assay Chemical formula: C₆H₈ON₂ CAS number: 63450-30-6</p>	All animal species	-	-	-	<p>1. The additive shall be incorporated into the feed in the form of a premixture of flavourings.</p> <p>2. In the directions for use of the additive and premixtures, the storage and stability conditions shall be indicated.</p> <p>3. The recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12% shall be:</p>	<i>[Publication Office insert date 10 years from the date of entry into force of the Regulation]</i>

			<p>FLAVIS No: 14.025</p> <p><i>Method of analysis ⁽¹⁾</i></p> <p>For the determination of 2,5 or 6-methoxy-3-methylpyrazine in the feed additive and in feed flavouring premixtures:</p> <p>Gas chromatography mass spectrometry with retention time locking GC-MS-RTL.</p>					<ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>4. On the label of the additive the following shall be indicated:</p> <p>"Recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12%:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry. - 0.5 mg/kg for other species and categories". <p>5. The functional group, the identification number, the name and the added amount of the active substance shall be indicated on the label of the premixtures and in the labelling of feed materials and compound feedingstuffs, if the following contents of the active substance in complete feedingstuff with a moisture content of 12% are exceeded:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>6. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks by inhalation, dermal contact or eyes contact. Where those risks cannot be eliminated or reduced to a minimum by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including breathing protection, safety glasses and gloves.</p>	
2b14049		2-Acetyl-3-ethylpyrazine	<p><i>Additive composition</i></p> <p>2-Acetyl-3-ethylpyrazine</p> <p><i>Characterisation of the active</i></p>	All animal species	-	-	-	<p>1. The additive shall be incorporated into the feed in the form of a premixture of flavourings.</p>	<i>[Publication Office insert date 10 years</i>

			<p><i>substance</i></p> <p>2-Acetyl-3-ethylpyrazine</p> <p>Produced by chemical synthesis</p> <p>Purity: min. 98% assay</p> <p>Chemical formula: C₈H₁₀ON₂</p> <p>CAS number: 32974-92-8</p> <p>FLAVIS No: 14.049</p> <p><i>Method of analysis</i> ⁽¹⁾</p> <p>For the determination of 2-acetyl-3-ethylpyrazine in the feed additive and in feed flavouring premixtures:</p> <p>Gas chromatography mass spectrometry with retention time locking GC-MS-RTL.</p>				<ol style="list-style-type: none"> 2. In the directions for use of the additive and premixtures, the storage and stability conditions shall be indicated. 3. The recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12% shall be: <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. 4. On the label of the additive the following shall be indicated: <p>"Recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12%:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry. - 0.5 mg/kg for other species and categories". 5. The functional group, the identification number, the name and the added amount of the active substance shall be indicated on the label of the premixtures and in the labelling of feed materials and compound feedingstuffs, if the following contents of the active substance in complete feedingstuff with a moisture content of 12% are exceeded: <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. 6. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks by inhalation, dermal contact or eyes contact. Where those risks cannot be eliminated or reduced to a minimum by such procedures and measures, the additive and 	<p><i>from the date of entry into force of the Regulation]</i></p>
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								premixtures shall be used with personal protective equipment, including breathing protection, safety glasses and gloves.	
2b14056		2,3-Diethyl-5-methylpyrazine	<p><i>Additive composition</i></p> <p>2,3-Diethyl-5-methylpyrazine</p> <p><i>Characterisation of the active substance</i></p> <p>2,3-Diethyl-5-methylpyrazine</p> <p>Produced by chemical synthesis</p> <p>Purity: min. 98% assay</p> <p>Chemical formula: C₉H₁₄N₂</p> <p>CAS number: 18138-04-0</p> <p>FLAVIS No: 14.056</p> <p><i>Method of analysis</i> ⁽¹⁾</p> <p>For the determination of 2,3-diethyl-5-methylpyrazine alcohol in the feed additive and in feed flavouring premixtures:</p> <p>Gas chromatography mass spectrometry with retention time locking GC-MS-RTL.</p>	All animal species	-	-	-	<p>1. The additive shall be incorporated into the feed in the form of a premixture of flavourings.</p> <p>2. In the directions for use of the additive and premixtures, the storage and stability conditions shall be indicated.</p> <p>3. The recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12% shall be:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>4. On the label of the additive the following shall be indicated:</p> <p>"Recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12%:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry. - 0.5 mg/kg for other species and categories". <p>5. The functional group, the identification number, the name and the added amount of the active substance shall be indicated on the label of the premixtures and in the labelling of feed materials and compound feedingstuffs, if the following contents of the active substance in complete feedingstuff with a moisture content of 12% are exceeded:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>6. For users of the additive and premixtures,</p>	<p><i>[Publication Office insert date 10 years from the date of entry into force of the Regulation]</i></p>

								feed business operators shall establish operational procedures and organisational measures to address potential risks by inhalation, dermal contact or eyes contact. Where those risks cannot be eliminated or reduced to a minimum by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including breathing protection, safety glasses and gloves.	
2b14062		2-(sec-Butyl)-3-methoxypyrazine	<p>Additive composition</p> <p>2-(sec-Butyl)-3-methoxypyrazine</p> <p>Characterisation of the active substance</p> <p>2-(sec-Butyl)-3-methoxypyrazine</p> <p>Produced by chemical synthesis</p> <p>Purity: min. 99% assay</p> <p>Chemical formula: C₉H₁₄ON₂</p> <p>CAS number: 24168-70-5</p> <p>FLAVIS No: 14.062</p> <p>Method of analysis ⁽¹⁾</p> <p>For the determination of 2-(sec-butyl)-3-methoxypyrazine in the feed additive and in feed flavouring premixtures:</p> <p>Gas chromatography mass spectrometry with retention time locking GC-MS-RTL.</p>	All animal species	-	-	-	<ol style="list-style-type: none"> 1. The additive shall be incorporated into the feed in the form of a premixture of flavourings. 2. In the directions for use of the additive and premixtures, the storage and stability conditions shall be indicated. 3. The recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12% shall be: <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. 4. On the label of the additive the following shall be indicated: <p>"Recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12%:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry. - 0.5 mg/kg for other species and categories". 5. The functional group, the identification number, the name and the added amount of the active substance shall be indicated on the label of the premixtures and in the labelling of feed materials and compound feedingstuffs, if the following contents of the active substance in complete 	<i>[Publication Office insert date 10 years from the date of entry into force of the Regulation]</i>

								<p>feedingstuff with a moisture content of 12% are exceeded:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>6. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks by inhalation, dermal contact or eyes contact. Where those risks cannot be eliminated or reduced to a minimum by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including breathing protection, safety glasses and gloves.</p>	
2b14112		2-Ethyl-3-methoxypyrazine	<p><i>Additive composition</i></p> <p>2-Ethyl-3-methoxypyrazine</p> <p><i>Characterisation of the active substance</i></p> <p>2-Ethyl-3-methoxypyrazine</p> <p>Produced by chemical synthesis</p> <p>Purity: min. 99% assay</p> <p>Chemical formula: C₇H₁₀N₂O</p> <p>CAS number: 25680-58-4</p> <p>FLAVIS No: 14.112</p> <p><i>Method of analysis</i> ⁽¹⁾</p> <p>For the determination of 2-ethyl-3-methoxypyrazine in the feed additive and in feed flavouring premixtures:</p> <p>Gas chromatography mass spectrometry with retention time locking GC-MS-RTL.</p>	All animal species	-	-	-	<p>1. The additive shall be incorporated into the feed in the form of a premixture of flavourings.</p> <p>2. In the directions for use of the additive and premixtures, the storage and stability conditions shall be indicated.</p> <p>3. The recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12% shall be:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>4. On the label of the additive the following shall be indicated:</p> <p>"Recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12%:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories". 	[Publication Office insert date 10 years from the date of entry into force of the Regulation]

								<p>5. The functional group, the identification number, the name and the added amount of the active substance shall be indicated on the label of the premixtures and in the labelling of feed materials and compound feedingstuffs, if the following contents of the active substance in complete feedingstuff with a moisture content of 12% are exceeded:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>6. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks by inhalation, dermal contact or eyes contact. Where those risks cannot be eliminated or reduced to a minimum by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including breathing protection, safety glasses and gloves.</p>	
2b14015		5,6,7,8-Tetrahydroquinoxaline	<p><i>Additive composition</i> 5,6,7,8-Tetrahydroquinoxaline <i>Characterisation of the active substance</i> 5,6,7,8-Tetrahydroquinoxaline Produced by chemical synthesis Purity: min. 98% assay Chemical formula: C₈H₁₀N₂ CAS number: 34413-35-9 FLAVIS No: 14.015 <i>Method of analysis</i> ⁽¹⁾ For the determination of 5,6,7,8-tetrahydroquinoxaline disulphide in the feed additive and in feed</p>	All animal species	-	-	-	<p>1. The additive shall be incorporated into the feed in the form of a premixture of flavourings.</p> <p>2. In the directions for use of the additive and premixtures, the storage and stability conditions shall be indicated.</p> <p>3. The recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12% shall be:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>4. On the label of the additive the following shall be indicated:</p>	

			flavouring premixtures: Gas chromatography mass spectrometry with retention time locking GC-MS-RTL.					<p>"Recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12%:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry. - 0.5 mg/kg for other species and categories". <p>5. The functional group, the identification number, the name and the added amount of the active substance shall be indicated on the label of the premixtures and in the labelling of feed materials and compound feedingstuffs, if the following contents of the active substance in complete feedingstuff with a moisture content of 12% are exceeded:</p> <ul style="list-style-type: none"> - 0.1 mg/kg for pigs and poultry - 0.5 mg/kg for other species and categories. <p>6. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks by inhalation, dermal contact or eyes contact. Where those risks cannot be eliminated or reduced to a minimum by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including breathing protection, safety glasses and gloves.</p>	
2b14022		2-Ethylpyrazine	<p><i>Additive composition</i></p> <p>2-Ethylpyrazine</p> <p><i>Characterisation of the active substance</i></p> <p>2-Ethylpyrazine</p> <p>Produced by chemical synthesis</p> <p>Purity: min. 98% assay</p> <p>Chemical formula: C₆H₈N₂</p>	All animal species	-	-	-	<p>1. The additive shall be incorporated into the feed in the form of a premixture of flavourings.</p> <p>2. In the directions for use of the additive and premixtures, the storage and stability conditions shall be indicated.</p> <p>3. The recommended maximum content of the active substance of complete feedingstuff with a moisture content of</p>	

			<p>CAS number: 13925-00-3 FLAVIS No: 14.022 <i>Method of analysis</i> ⁽¹⁾ For the determination of 2-ethylpyrazine in the feed additive and in feed flavouring premixtures: Gas chromatography mass spectrometry with retention time locking GC-MS-RTL.</p>					<p>12% shall be:</p> <ul style="list-style-type: none">- 0.1 mg/kg for pigs and poultry- 0.5 mg/kg for other species and categories. <p>4. On the label of the additive the following shall be indicated: "Recommended maximum content of the active substance of complete feedingstuff with a moisture content of 12%:</p> <ul style="list-style-type: none">- 0.1 mg/kg for pigs and poultry.- 0.5 mg/kg for other species and categories". <p>5. The functional group, the identification number, the name and the added amount of the active substance shall be indicated on the label of the premixtures and in the labelling of feed materials and compound feedingstuffs, if the following contents of the active substance in complete feedingstuff with a moisture content of 12% are exceeded:</p> <ul style="list-style-type: none">- 0.1 mg/kg for pigs and poultry- 0.5 mg/kg for other species and categories. <p>6. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks by inhalation, dermal contact or eyes contact. Where those risks cannot be eliminated or reduced to a minimum by such procedures and measures, the additive and premixtures shall be used with personal protective equipment, including breathing protection, safety glasses and gloves.</p>	
<p>⁽¹⁾ = Details of the analytical methods are available at the following address of the Reference Laboratory: https://ec.europa.eu/jrc/en/eurl/feed-additives/evaluation-reports</p>									