







## The Challenge

### Consumer Expectations

Thanks to its full-bodied taste, cocoa has been a highly sought-after luxury food for many years. It is a relevant imported good and is the raw material for chocolate production. Global demand and the diversity of offered products increase constantly. Terms such as exquisiteness, indulgence and refined taste continue to increase in significance. As a result, consistently high quality is important in order to protect your brand.

### Product-specific Requirements

The industrial production of chocolate is extremely demanding and equally complex. Starting in the growing regions, in addition to the climate, soil condition is also an important decisive factor for the subsequent quality of the chocolate. For example cocoa plants absorb heavy metals from the environment, often leading to Cadmium levels higher than accepted for chocolate. Transport and storage of cocoa pose additional major risks of mould and pest infestation due to the high atmospheric humidity. The quality of the chocolate is therefore ultimately dependent on the entire value chain; from the grade of the raw cocoa to the processing and right up to packaging.

### Quality Standards from Raw Cocoa to Chocolate

In order to be able to guarantee the quality of cocoa and chocolate, an expert advisor who knows the requirements of the cocoa industry and understands the interactions and general conditions is essential.

### **The Eurofins Solution**







**Industry Experts** 

**Analytics** 

**Additional Service** 

## Comprehensive solutions that are individually tailored to your company

- Personalised support by industry experts
- Reliable results on time
- Support in order to comply with all legal requirements

## **An Overview of our Expertise**



### **Competent Advice by Industry Experts**

Eurofins experts from industry-relevant areas form the competence team for cocoa and chocolate products. They advise you regarding quality assurance as well as analyses and develop customised and customer-specific solutions. Most of the state-of-the-art laboratory equipment and latest analyses methods are available to your queries.

- **Expert**, competent advice and assessment in accordance with food laws
- The latest knowledge gained through professional organisation memberships
- Practically oriented consultation solutions
- Long-term experience of our industry experts gained from a multitude of projects





### **Industry-specific Analytics**

As a leading provider of laboratory services, Eurofins delivers an individual consultation and the complete range of analyses. Based on this, Eurofins is competent to respond to all parameters that are relevant to the cocoa industry. Own research and introduction of new methods enable Eurofins to keep pace with the latest developments in food testing and food safety.

- Selecting suitable analysis methods
- Reliability through the use of state-of-the-art technology and the latest analysis methods
- Permanent research and method development
- Specialised analytics for industry-specific products



### **Additional Services**

Eurofins offers a multitude of additional services that go beyond the analytical spectrum. Eurofins OnLine Service (EOL) allows you 24-hour access to your analysis results and the data archive. The global presence of Eurofins helps you to guarantee the quality and safety of your products – from the raw cocoa right up to the end product.

- Conceptual on-site solutions, certifications and audits
- Risk and crisis management, monitoring programmes
- Global supply chain control, sampling and sample logistics
- Safe and efficient business processes through creation of individual IT solutions





# **Analytical Scope of Cocoa and Chocolate**

### **Analysable Products**

- Cocoa (beans, powder, butter, mass)
- Chocolate
- Filled chocolate
- Raw materials
- Other cocoa or chocolate-containing products

#### **Residues and Contaminants**

- Mycotoxins (e.g. ochratoxin A, aflatoxins)
- Pesticides
- Polycyclic aromatic hydrocarbons (PAHs)
- Process contaminants (e.g. furan, acrylamide, 3-MCPD esters including glycidol)
- Fumigant residues (e.g. bromide, hydrogen phosphide)
- Heavy metals (e.g. lead, cadmium, mercury and arsenic)
- Mineral oil residues from jute bags and other sources

### **Microbiological Testing**

- Classic and automated culture procedures
- Hygiene-related micro-organisms
- Spoilage organisms
- Pathogenic micro-organisms and their toxins
- Micro-organism identification
- 16S-rDNA sequencing to determine whether contamination has occurred

### Ingredients

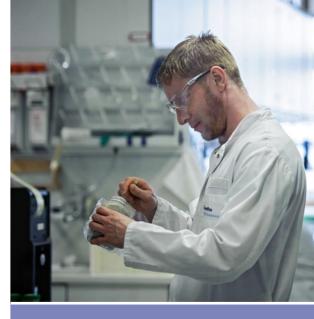
- Nutritional values
- Theobromine
- Caffeine
- Vanilla ingredients
- Butyric acid (milk fat)
- Additives (e.g. preservatives, antioxidants, sweeteners, steviol glycosides, colours, sugar substitutes)
- Vitamins
- Minerals
- Soy lecithin

### **Sensory Analysis**

- Sensory profile (e.g. flavour, acidity and body)
- Comparison between the sensory profile and your specifications
- Simple descriptive sensory analysis
- Foreign matters

### **Special Queries**

- Allergen analysis
- Authenticity
- Marketability and label check
- Consumer Research
- Analysis of genetically modified organisms



### **Further Expertise**

**Baked goods** 

Tea and herbal infusions

Coffee

everages

Milk and milk products

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**Spices and flavours** 

**Confectionery products** 

**Nuts and dried fruits** 

Fats and oils

Convenience foo

Organic food



## **Expertise in Cocoa and Chocolate**

Benefit from the outstanding range of Eurofins Services. We will gladly advise you.