

Lidl GB

Policy on Food Safety

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CONTENTS

1. Introduction	3
Our Approach	3
2. Food Safety	4
2.1 Acrylamide.....	4
2.2 3-monochloropropane-1,2-diol (3-MCPD)	5
2.3 MOSH/MOAH – Migrations of mineral oil hydrocarbons to food	6
2.4 Pyrrolizidine alkaloids (PAs) and tropane alkaloids (TAs)	7
2.5 Plant protection products	7



1. Introduction

At Lidl, we are committed to making 'good food accessible to everyone'. As a leading food retailer, we are aware of our responsibility to help our customers to make healthier choices when they shop in our stores. In this policy, we outline the extra steps we are taking to ensure safe food for our customers.

Our Approach

Policy purpose

This 'Food Safety' policy sets out the criteria, specifications, and targets for Lidl GB's own brand product range. For each section of the policy, we introduce the relevant issue, our approach and communicate our defined targets.

Continuous improvements – a science-based approach

To develop this policy, we have followed the latest findings in health, science, and technology, as well as closely assessing current social trends. To maintain our commitment to quality and price, we continually assess and evaluate our own brand product range, keeping our customers' needs at the heart of our decision making.

2. Food Safety

Underpinning our 'Health and Nutrition' policy is our commitment to food safety – our number one priority. The steps we take to ensure food safety are outlined below:

Lidl's supplier standards

All our own brand suppliers are audited to our internal quality management system and must be, or working towards, certification to globally recognised independent food safety standards (International Featured Standard (IFS) or British Retail Consortium (BRC)).

Own brand product testing

Our own brand products undergo quality testing by our quality assurance department. In addition to this internal quality control, we also retain the services of experts from independent, fully accredited testing laboratories. These laboratories take samples of our products and test for quality and safety criteria.

2.1 Acrylamide

How is acrylamide formed in food?

The formation of acrylamide in foods is largely linked to the Maillard or "browning" reaction, which primarily occurs during baking, roasting, searing, and frying. A chemical reaction occurs between certain sugars and protein compounds in the presence of heat that results in the browning of food and is responsible for the characteristic flavours and aromas. Acrylamide can be generated as a by-product of the Maillard reaction above temperatures of 120°C.

Why reduce acrylamide?

Although the health effects of high acrylamide levels within food on humans have been extensively investigated since 2002, there is still no conclusive answer to this question. However, experimental studies in animals have shown that acrylamide can have mutagenic and carcinogenic effects. In a 2015 scientific publication, the European Food Safety Authority (EFSA) concluded that a link between acrylamide intake and risk of cancer in humans could neither be confirmed nor ruled out¹.

What are the legal requirements?

To date there is no legislation stipulating binding limits for acrylamide.

However, in November 2017, the European Commission enacted Regulation (EU) No. 2017/2158 which established benchmark levels relating to acrylamide for the first time.

Lidl's approach to acrylamide

At an International level, Lidl began targeted efforts to reduce acrylamide levels in its own branded products before any legislative requirements had been put in place. At Lidl GB we intend to maintain levels below the EU benchmark levels for acrylamide.

Lidl GB Target	
Step 1: Meet EU benchmark levels for relevant product groups.	ONGOING
Step 2: Develop roadmap with strategic suppliers to reduce levels below EU benchmark levels.	

Acrylamide Levels			
Product group	EU indicative value [$\mu\text{g}/\text{kg}$]	EU benchmark level [$\mu\text{g}/\text{kg}$]	Lidl Internal Target [$\mu\text{g}/\text{kg}$]
Crispbread	450	350	200
Breakfast cereals from bran, whole grain cereals and gun puffed grain	400	300	200 gun puffed grain: 300
Wheat and rye based breakfast cereals	300	300	100
Maize, oat, spelt, barley and rice based breakfast cereals	200	150	100
Potato crisps	1,000	750	263
French fries (ready-to-eat)	600	500	71

2.2 3-monochloropropane-1,2-diol (3-MCPD)

What is 3-MCPD and where is it found?

Fatty acid esters of 3-MCPD are formed during the refining of oils, i.e. during heat treatment for the purpose of purification and processing. These compounds can also be formed when foods that contain both fat and salt are exposed to high temperatures during production, such as in the production of soy sauce. Palm oil, as a refined edible oil, poses a greater risk of contamination, while rapeseed and sunflower oils contain fewer contaminants due to the production process.

Why should intake be kept to a minimum?

Free 3-MCPD is suspected of causing changes in kidney tissue and benign tumours. Therefore, dietary intake should be kept to a minimum.

What are the legal requirements?

The primary sources of dietary intake of 3-MCPD have been identified as soy sauce and soy sauce based products. Based on this, the European Commission has established a statutory limit for 3-MCPD levels in, among other things, soy sauce. However, no statutory limits have thus far been established for fats and oils. At the present time, it may only be assessed against the TDI (tolerable daily intake).

Further information:

The TDI refers to the amount of a substance that can be taken in daily over a lifetime without appreciable health risk.

In March 2016, the European Food Safety Authority (EFSA) published an updated assessment of the risks for human health related to the presence of 3-MCPD and its fatty acid esters in food. Following an update in January 2018, the TDI was set at 2.0µg/kg body weight based on a body weight of 60kg (132 pounds) for an average adult.

Lidl GB Target	
Tests products according to the risk of 3-MCPD to ensure the presence of 3-MCPD is minimised	ONGOING

2.3 MOSH/MOAH – Migrations of mineral oil hydrocarbons to food

What is MOSH/MOAH?

Food packaging can contain a certain percentage of recycled materials. The mineral oil components from that recycled material can transfer or “migrate” in to food. These mineral oil hydrocarbons (MOH) consist of two primary fractions, mineral oil saturated hydrocarbons (MOSH) and mineral oil aromatic hydrocarbons (MOAH); each having different properties.

Why are migrations of mineral oil hydrocarbons to food undesirable?

Research indicates that MOSH/MOAH can have a potential adverse health effect.

What are the legal requirements?

Due to a lack of data, it is not possible to make any health-based assessment on the potentially carcinogenic MOAH fraction. However, the European Food Safety Authority (EFSA) considers dietary exposure to MOAH to be generally undesirable. According to the German Federal Institute for Risk Assessment (BfR), any detectable migration of MOAH to food products should be avoided and minimised, where technically feasible. Because of the complexity of the issues involved, no legislation or statutory limits for mineral oil residues in foods exist to date.

Lidl’s approach to MOSH/MOAH

All suppliers are required to carry out migration testing on the packaging of all our food contact products to avoid the migration of MOSH / MOAH in our food products.

Lidl GB Target	
Minimise mineral oil residues in all food products.	ONGOING

2.4 Pyrrolizidine alkaloids (PAs) and tropane alkaloids (TAs)

Pyrrolizidine alkaloids (PAs) and tropane alkaloids (TAs) are plant metabolites that occur frequently in nature. Plants produce these substances in order to defend themselves against damage by herbivores.

Where do PAs and TAs occur and how do they find their way into foods?

PAs and TAs tend to enter the food supply chain when wild-growing weeds are harvested at the same time as crops. Plants containing TAs grow in grain fields and can enter the grain products. PAs can also be found in herbs, spices, lettuce and tea.

Why are PAs and TAs in food undesirable?

The consumption of high doses of PAs may be hepatotoxic, which means that they can be damaging to the liver as well as carcinogenic. TAs may adversely affect the central nervous system and heart.

What are the legal requirements?

To date there are no statutory limits for PA levels in food. Due to the genotoxic and carcinogenic effects shown in animal experiments and therefore the potential adverse health effects on humans. Both the BfR and the EFSA have established a reference dose for a tolerable daily intake regarding potential cancer risk. In 2013, EFSA established a group acute reference dose (ARfD) of 0.016µg/kg body weight for TAs.

The EU Commission has established maximum levels for the two most important tropane alkaloids (atropine and scopolamine) in certain cereal-based foods, the maximum level for each of these is 1.0µg/kg of processed cereal-based foods.

Lidl's approach to Pyrrolizidine alkaloids (PAs) and tropane alkaloids (TAs)

Our suppliers work to minimise the introduction of PAs and TAs when weeds and seeds are inadvertently harvested along with crops.

Lidl GB Target	
Minimise pyrrolizidine alkaloids (PAs) and tropane alkaloids (TAs) PAs: may not exceed the reference dose by more than 50%	ONGOING

2.5 Plant protection products

What are plant protection products and what are they used for?

Plant protection products, commonly known as pesticides, are chemical or biological products that are used to protect plants against pests, diseases and weeds. They play a major role in crop protection.

What are the legal requirements?

Plant protection products may only be used in the EU if they have undergone strict testing and passed the authorisation process. Products are tested for efficacy, safety for humans and animals as well as their environmental acceptability. Residues of plant protection products may occur even when applied correctly. Therefore, maximum residue levels for food have been set. These indicate the maximum allowable residue levels without an expected impact on health. The maximum residue levels for active substances have been established as part of EU-wide regulation² and are therefore binding in every EU Member State.

Lidl's approach to plant protection products

At Lidl, our aim is to minimise the amount of plant protection residues in our fresh fruit and vegetables. To achieve this, we observe strict standards that far exceed EU legislative requirements:

- Lidl only permits residue levels of active substances that are one third of the statutory maximum levels
- Residue levels of all active substances may not in total exceed 80% of the statutory maximum level
- Residues of no more than five identifiable active substances are permitted

Lidl GB Target	
Our aim is to reduce the level of plant protection residues as far as possible.	ONGOING

References:

1 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/acrylamide150604.pdf

2 Regulation (EC) No 396/2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC