



Lidl GB Policy on Health and Nutrition



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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 steps we are taking to promote health and nutrition, whether that be as part of the manufacturing process, the formulation of recipes or the selection of food additives used in our products.

Our Approach

Policy purpose

This 'Health and Nutrition' 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. In order 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)).

In addition, all suppliers holding BRC accreditation must hold Grade A rating.

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

 <p>Target</p>	<p>Step 1: Meet EU benchmark levels for relevant product groups.</p> <p>Step 2: Develop roadmap with strategic suppliers to reduce levels below EU benchmark levels.</p>	ONGOING
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Acrylamide Levels			
Product group	EU indicative value [µg/kg]	EU benchmark level [µg/kg]	Lidl Internal Target [µg/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.

	<p>Tests products according to the risk of 3-MCPD to ensure the presence of 3-MCPD is minimised</p>	<p>ONGOING</p>
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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
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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 with regard to 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

	<p>Minimise pyrrolizidine alkaloids (PAs) and tropane alkaloids (TAs)</p> <p>PAs: may not exceed the reference dose by more than 50%</p> <p>TAs: no TA contamination</p>	ONGOING
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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
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3. Helping our customers make healthier choices

To help our customers make healthy choices, we are taking a range of actions to reduce the levels of salt, sugar, calories and saturated fat in our products. These include:

- Reformulation of products
- Reduction of package/portion size.
- Shift in product portfolio.

What food categories are being focused on?

3.1 Sugar

The reduction of sugar focuses primarily on foods that make up the most sugar intake in a child's diet:

- | | |
|-----------------------|----------------------------|
| - Breakfast cereals | - Yogurt and fromage frais |
| - Biscuits | - Cakes |
| - Morning goods | - Puddings |
| - Ice cream | - Chocolate confectionery |
| - Sweet confectionery | - Sweet spreads and sauces |
| - Nut butters | - Milk drinks and juices |

3.2 Salt

The reduction of salt focuses on wide variety of food categories that are consumed on a regular basis and generally make up a large share of the daily salt intake.

3.3 Calories

The reduction of calories focuses primarily on foods that make up the most calorie intake in a child's diet:

- | | |
|---------------------------|--------------------|
| - Crisps & savoury snacks | - Savoury biscuits |
| - Potato products | - Ready meals |
| - Rice, pasta & noodles | - Pizza |
| - Dips & salads | - Sandwiches |
| - Salads & sushi | |

<p>Target</p> 	<p>Sugar and calories: as set out in the UK Government's Childhood Obesity plan (2016), reduce the sales-weighted average content by 20% across our own brand product range, the reduction of sugar and calories focuses primarily on foods that are popular with and consumed by children.</p> <p>Salt: reduce the content of our products in line with the UK's Food Standards Agency (FSA) 2017 salt targets.</p> <p>The reduction of salt focuses on food categories that are consumed on a regular basis and generally make up a large share of the daily salt intake.</p>	<p>September 2020 (sugar)</p> <p>September 2024 (calories)</p>
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How do we measure our progress?

We measure our progress based on the reduction of the average sugar, calories or salt content per 100g of food or 100ml of beverage, weighted by units sold per year in Great Britain. This means that within a given food category, the total amount of sugar, calories and salt will be determined for all products sold within a given year at Lidl in Great Britain and divided by the total number of products sold. The aim is to improve this ratio each year. Comparing the current ratio against that of the previous year shows us how much progress we have made.

4. Choosing food ingredients with care

Product quality begins with the selection of ingredients. We have high standards in this regard, and the products we offer our customers must have the highest quality and taste. That is why we have defined specific criteria for the selection of ingredients.

4.1 Food colours

What are food colours and why are they used in food?

Food colours are added to improve the appearance of food. Food colours are also used in foods that are actually colourless, such as confectionery, to serve as a flavour indicator.

Why are some food colours controversial?

According to a study published by the University of Southampton in 2007, certain azo food dyes and quinoline yellow are suspected of causing hyperactivity and attention disorders in children. These food colours are listed in the EU Regulation on food additives, and any food and drink containing these must carry a warning on the packaging with the wording e.g. *"May have an adverse effect on activity and attention in children"*.

What are the legal requirements?

In the European Union, food colours are governed by the regulation on food additives. Only colours that have had their safety assessed by EFSA can be authorised for use. Foods containing any of these colours must be labelled with the additional information "food colour", followed the name or E number of the colour. To be as transparent as possible, Lidl's own brand product labels always contain the specific name(s) of all additives.

Lidl's approach to food colours

For many years now, our aim has been to avoid using azo dyes in food. Going forward, we also intend to move away from using the following food colours: quinoline yellow; carmine; erythrosine and green S. This is because there is evidence that these may be harmful for children.

Our target is to avoid using artificial colours as far as possible. We are reviewing all own brand products to determine whether the use of food colours is necessary. Wherever they cannot be dispensed with, we prefer to use natural colouring from foods (e.g. beetroot) rather than food colours.

Lidl GB Target

	<p>Continue to review all products containing food colours to determine whether the use of food colours is necessary. Where possible, we intend to avoid artificial food colours. We will avoid carmine and erythrosine completely.</p>	<p>ONGOING</p>
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4.2 Preservatives

What are preservatives and what are they used for?

Preservatives are food additives designed to limit the growth of microbes in food, keeping it fresh for longer.

Why are some preservatives controversial?

The use of certain preservatives is controversial because they have been associated with allergic reactions, for example, sulphites (used e.g., in wine and dried fruits) or benzoic acid derivatives (used e.g., in pickled vegetables or fish products).

The use of nitrites in meat products is also controversial. Nitrite has been linked to the formation of a group of compounds known as nitrosamines, which are known carcinogens. However, nitrite reliably inhibits the growth of pathogenic bacteria and as such is the safest and most effective method for preserving meat products.

What are the legal requirements?

As with all food additives, EFSA is responsible for assessing the safety of each individual preservative. A food additive can only be authorised if it does not, on the basis of the available scientific evidence, pose a risk to the health of the consumer at the proposed level of use (in this case as a preservative).

Foods containing preservatives must be labelled with the additional information "preservative", followed by the name or E number of the preservative. To be as transparent as possible, our own brand product labels always contain the specific name(s) of all additives.

Lidl's approach to preservatives

At Lidl we aim to reduce the use of preservatives as far as possible or eliminate them completely, provided this does not compromise food safety. For certain products, such as sausages, and cooked meat, the use of preservatives cannot always be completely avoided. This is due to safety reasons as the elimination of preservatives in these categories would result in the growth of pathogenic bacteria.

Lidl GB Target

	<p>Continue to reduce the use of preservatives as far as possible or eliminate them completely, provided this does not compromise food safety.</p> <p>Therefore, we are reviewing all products containing preservatives to determine whether the use of preservatives is necessary.</p>	ONGOING
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4.3 Flavours

What are flavours and why are they used in food?

When appropriate, flavours are used as part of our product development process to optimise the overall taste profiles of the products. Our aim is to use flavours only where they are needed, ensuring that recipes are optimised without sacrificing on taste. If our desired taste profiles cannot be achieved without natural extracts or natural food flavours, we also use artificial flavours.

Lidl GB Target

	<p>Continue to review all products containing flavours to determine whether the use of flavours is necessary. We will avoid the use of artificial flavours as far as possible.</p>	ONGOING
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4.4 Fats (hydrogenated fats, trans-fats, saturated and unsaturated fats)

What are saturated / unsaturated fats and what are their functions?

Fats and oils contain saturated and unsaturated fatty acids, which differ in their nutritional properties.

Lidl's approach to saturated and unsaturated fats

Our target is to minimise the levels of saturated fats in our products.

What are trans-fatty acids and what effects do they have?

Trans-fatty acids are formed when liquid vegetable oils are partially hydrogenated to form a semi-solid or solid fat. Trans-fats raise the (bad) LDL cholesterol levels in the blood and lower the (good) HDL cholesterol.

What foods are trans-fatty acids found in?

Trans-fatty acids are found primarily in fast foods, snack foods, cookies, fried foods and sandwich spreads.

What are the legal requirements?

In Great Britain the general content of artificial trans-fatty acids in food is not regulated by law.

Statutory limits have already been established in other countries such as Denmark, Austria, Hungary, Iceland, Norway, Latvia, Lithuania, Slovenia and Switzerland. In Denmark, for example, food may not contain more than 2.0g of trans fat per 100g of fat or oil.

Lidl's approach to trans fats

In an effort to minimise the risk for trans-fatty acids in our products, we avoid using hydrogenated fats whenever possible.

Lidl GB Target

	Where possible, Lidl is committed to removing trans-fatty acids. In all other instances Lidl will improve fatty acid composition by using alternatives such as rapeseed oil, for example.	ONGOING
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4.5 Palm Oil

Where does palm oil come from and what are the benefits of using it?

Palm oil is derived from the fruit of the tropical oil palm tree and is the most commonly used vegetable oil worldwide. Since the oil palm is perennial and bears fruit throughout the year, it is widely recognised as the most productive oil crop. Unlike other vegetable oils that are naturally softer and more fluid, palm oil is semi-solid at ambient temperature and therefore does not have to be hydrogenated first for many applications.

What effects does it have on health?

Palm oil is high in saturated fats. An excess dietary intake of saturated fats can raise triglyceride (blood fat) levels. The processing of palm oil at high temperatures also increases the risk of the formation of certain fatty acid esters (3-MCPD) which are considered carcinogenic.

Lidl's approach to palm oil

At Lidl, we are committed to sourcing 100% of the palm oil used within our product range from third party certified sustainable sources. Lidl's full approach to the sustainable sourcing of palm oil is outlined in our 'palm oil' policy, which can be viewed at www.lidl.co.uk/sustainability.

4.6 Vitamin and mineral fortification

What function do vitamins have for humans?

Vitamins are organic compounds that the human body needs to function properly. Vitamins are primarily contained in fruits, vegetables and grains. Vitamins have a variety of functions for the human organism: vitamin C, for example, plays a role in the functioning of our immune system, Vitamin A on the other hand is essential for good vision.

What function do minerals have for humans?

Minerals are inorganic nutrients found in plant-based and animal-based foods. They serve a variety of functions for all metabolic and growth processes in the body.

What are the effects of food fortification with vitamins and minerals?

Foods are fortified with vitamins and minerals in order to compensate for deficiencies in the nutrient intake. However, excessive intake can in some cases have adverse health effects.

Lidl's approach to vitamins and minerals

Vitamins and minerals are only added to certain select products, such as multivitamin drinks (vitamins), sports drinks, meat substitute products (vitamin B12), plant-based dairy substitutes (calcium), margarine and iodised table salt.

4.7 Sweeteners

What are sweeteners and what are they used for?

Sweeteners are synthetically produced (e.g., aspartame) or natural compounds (e.g., stevia) which serve as energy-free sugar substitutes. The use of sweeteners in food makes it possible to offer low-calorie or calorie-reduced alternatives without sacrificing the sweet taste.

Why are sweeteners controversial?

The use of sweeteners for children is considered controversial. When children consume sweeteners, they can become accustomed to the intense sweetness of industrially produced products and lose their perception of what less-sweet natural food tastes like.

What are the legal requirements?

As for all food additives, sweeteners are regulated substances which are subject to safety evaluation prior to market authorisation. In the European Union (EU), there are currently 11 approved sweeteners. An acceptable daily intake (ADI) is determined for each individual sweetener in the health assessment.

Lidl's approach to sweeteners

As part of our sugar reduction strategy, we are working towards reducing the sales-weighted average of sugar by 20% from predetermined categories across our own brand product range. Where possible, we will look to reformulate products through the removal of sugar, however in some cases the addition of sweeteners may be required.

4.8 Isoglucose (glucose-fructose syrup)

What is isoglucose and what is it used for?

Isoglucose, glucose-fructose syrup, fructose-glucose syrup and high fructose corn syrup all have one thing in common - they are all terms for a sugar syrup made up of varying amounts of the simple sugar, glucose (grape sugar) and fructose (fruit sugar).

Table 2 Definitions Isoglucose

Name	Fructose content	Origin
Isoglucose	10% or more	wheat, maize, potato
Glucose-fructose syrup	5% – 50%	wheat, maize, potato
Fructose-glucose syrup	> 50%	wheat, maize, potato
High fructose corn syrup (used mainly in the U.S.)	min. 42%, often 55%	maize

Why is glucose-fructose syrup controversial?

Adding isoglucose mixtures, containing a high percentage of fructose, to processed foods can lead to an increased consumption of fructose, which can have adverse effects on metabolism. According to various studies, an excessive intake of fructose can lead to an increased risk of obesity, diabetes, metabolic disorders and cardiovascular disease³.

Unlike glucose, fructose is metabolized in the liver. Excessive fructose intake can therefore cause what is known as a "non-alcoholic fatty liver". This is comparable to a fatty liver caused by excessive alcohol consumption. It is estimated that up to 30% of the population in Europe today suffers from non-alcoholic fatty liver disease which can lead to diabetes and hypertension⁴.

Lidl's approach to glucose-fructose syrup

The first steps to eliminate the use of fructose-glucose syrup in Lidl products were taken in early 2017.

Our long-term goal is to use glucose-fructose syrup only where technically necessary and not for sweetening purposes.

If, however, a product does contain glucose-fructose syrup, we require the fructose content to be less than 42%. Through this measure we can ensure that no high fructose corn syrup is used.

Lidl GB Target

<p>Target</p> 	<p>Our target is to use glucose-fructose syrup only where technologically necessary, however not for sweetening purposes .</p> <p>If a product contains glucose-fructose syrup, the fructose content will be less than 42%. This way we ensure that no high fructose corn syrup (HFCS) is used.</p>	<p>January 2025</p>
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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

³ Bray, George A. et al. (2004) Consumption of high-fructose corn syrup in beverages may play a role in the epidemic of obesity. The American Journal of Clinical Nutrition, Volume 79(4):537-543

⁴ Weiss J, Rau M, Geier A (2014) Non-alcoholic fatty liver disease: epidemiology, clinical course, investigation, and treatment. Deutsches Ärzteblatt Int 111: 447–452