

Toxic mineral oil in food

Laboratory tests 2021



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INTRODUCTION

Food products are still contaminated with toxic mineral oil

For the third time since 2015, foodwatch has commissioned laboratory tests to examine staple foods on mineral oil. The results show that everyday foods are still contaminated with harmful mineral oil hydrocarbons and in some cases even to a considerable high extent. Of the products tested this year and bought in France, Germany, the Netherlands, Austria and Belgium, 19 products contained a concerning amount of mineral oil aromatic hydrocarbons, or MOAH.

According to the European Food Safety Authority (EFSA), these toxic substances are suspected carcinogens and mutagens (substances which permanently alter DNA).¹ Some disrupt the endocrine system. Any detectable presence of MOAH in a food product is therefore unacceptable.

- October 2015: foodwatch carried out laboratory tests on around 100 European products (e.g. rice, couscous, lentils, cornflakes, pasta, etc.) from three different European countries (France, Germany and the Netherlands): 43% of the products are potentially carcinogenic and mutagenic.²
- **January 2017:** In response to our first major test, the European Commission announced a monitoring program for mineral oil in food.³
- October 2019: foodwatch published the results of a test on infant formula bought in France, Germany and the Netherlands. Half of the 16 products tested contained a worrying amount of MOAH.⁴
- **November 2019:** After foodwatch's latest revelations, the European Food Safety Authority (EFSA) produced a new **'urgent' report** on the



risks linked to the contamination, and confirmed foodwatch's results and the need for action.⁵ However, Nestlé and Danone opted for denial, and refused to recall the products contaminated with MOAH and to commit to a policy of zero MOAH. This action reflects an irresponsible behaviour.

- **June 2020:** At a meeting of the SCOPAFF technical committee, the European Commission and the Member States decided for the first time to establish an MOAH threshold for baby milk, at 1 mg/kg double the minimum detectable rate of 0.5 mg/kg. 6
- **December 2021:** After the contamination was detected in new tests, foodwatch called for a regulation to impose zero tolerance for MOAH in all food categories throughout Europe.



MINERAL OILS: WHAT ARE THE HEALTH RISKS?

They do not belong in our food

Mineral oils are found in many areas of the human environment. They have already been found - including through tests commissioned by foodwatch - in numerous foods such as rice, pasta, chocolate and edible oils, but can also be found in packaging, children's toys, animal feed and cosmetics.

Two types of mineral oils contaminate food: mineral oil aromatic hydrocarbons (MOAH) and mineral oil saturated hydrocarbons (MOSH). They need to be clearly distinguished, as according to the European Food Safety Authority (EFSA), the different groups of mineral oils, MOSH and MOAH, do not have the same toxicological potential.

IMPORTANT

ABSORPTION OF THESE SUBSTANCES, WHETHER MOAH OR MOSH, DOES NOT CAUSE AN ACUTE, IMMEDIATE RISK TO HEALTH. HOWEVER, THE RECOMMENDATIONS OF THE EUROPEAN FOOD SAFETY AUTHORITY (EFSA) ARE VERY CLEAR: NO AMOUNT OF EXPOSURE TO MOAH CAN BE CONSIDERED SAFE.

Mineral oil aromatic hydrocarbons (MOAH)

Mineral oil aromatic hydrocarbons (MOAH) are particularly concerning. They are suspected carcinogens and mutagens. Their influence on the functioning of the hormone system as endocrine disruptors has also been demonstrated⁷. There is no "safe" daily dose for potential carcinogens. As a result, the European Food Safety Authority (EFSA) has determined that any exposure to aromatic hydrocarbons via food presents a risk.

After foodwatch's campaign launched at the end of 2015, the European Commission set up a monitoring programme beginning in January 2017 in the Member States.

Mineral oil saturated hydrocarbons (MOSH)

Mineral oil saturated hydrocarbons are found in food much more frequently, and at much higher concentrations. These substances accumulate in the body and can lead to damages of several different organs, as shown in tests on rats. EFSA considers some MOSH of concern when they are above a certain level.



HOW DOES MINERAL OIL CONTAMINATE OUR FOOD?

Sources of contamination

Possible sources of contamination exist all the way along the production chain for all food products. This makes it difficult to identify their precise origins from laboratory analyses alone. **Mineral oils can enter food at every stage in the processing chain, from harvest to packaging, as well as further processing.** There is unavoidably a certain amount of background pollution in the environment. Mineral oils are also used specifically by the food industry, for example as anti-dust binders, lubricants in production machinery, mould release agents, and as polishes or in adhesives.

The test published by foodwatch in 2015 covered dry food in cardboard packaging. One of the identified contamination sources at that stage was the packaging, from which mineral oil hydrocarbons migrate into food. The printing inks used were singled out in particular as a culprit, but the accumulation of contaminants via processes to recycle the packaging was also raised. In 2019, the tin cans containing infant formula were also under suspicion. However, tests showed that some powdered milks could also be contaminated before they were canned. This may therefore be due to the manufacturing process or external contamination of one or more of the ingredients.

Ultimately, there are multiple possible sources of contamination. It is up to manufacturers to identify them and eliminate them throughout the production, transport and distribution chain of the foods so they can guarantee that only products with no detectable MOAH presence are sold.

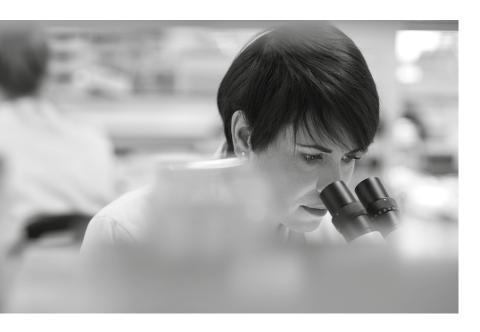




SAMPLING AND METHODOLOGY

The products were bought in the five countries where foodwatch operates, between August and October. The analyses and checks were carried out between August and November 2021.

The products in which suspected carcinogenic MOAH were detected, were tested by two different independent laboratories to ensure the highest level of precision, reproducibility and validity. All products containing MOAH above the detection limit of 0.5 mg/kg were analysed again to confirm the results obtained.



For these sensitive tests, foodwatch undertook a rigorous selection process for the laboratories. To ensure that the tests would have maximum reliability, the chosen laboratories had to meet the following requirements:

- THEY MUST BEACCREDITED AND HIGHLY EXPERIENCED IN MINERAL OIL ANALYSIS;
- FOR THE QUANTIFICATION OF MOSH AND MOAH, THEY MUST USE THE ONLINE-LC/GC-FID DETECTION METHOD RECOMMENDED BY THE EUROPEAN COMMISSION IN ITS "GUIDANCE ON SAMPLING, ANALYSIS AND DATA REPORTING FOR THE MONITORING OF MINERAL OIL HYDROCARBONS IN FOOD AND FOOD CONTACT MATERIALS".8

Current analysis techniques and laboratory good practice do not allow more precise results to be obtained. For more information, please see our technical report at www.foodwatch.org/technical report_mineral oil.9

How we evaluated the results



Mineral oil aromatic hydrocarbons (MOAH) are recognised as potential carcinogens, mutagens and endocrine disruptors. In the analysis of our results, food containing a detectable quantity of MOAH is therefore considered to have an unacceptable level of contamination.



Mineral oil saturated hydrocarbons (MOSH) accumulate in the human body and can damage various organs. No acceptable daily quantity has been officially set for MOSH.



TEST RESULTS

foodwatch bought 152 food products in five European countries - 30 in France, 39 in Germany, 20 in Belgium, 27 in the Netherlands and 36 in Austria - to test their level of mineral oil contamination. The tests were carried out by two laboratories.

The results of these tests show that 19 of the 152 products analysed are contaminated with mineral oil aromatic hydrocarbons (MOAH), i.e. one in eight products (12.5%). Contamination levels ranged from 0.63 mg per kilo of product to 82 mg/kg. Unilever's Knorr stock cubes were identified as contaminated with MOAH in several different batches in the five countries, at levels of contamination that are of great concern.

Saturated hydrocarbon derivatives (MOSH) were detected above the limit of quantification of 0.5 mg/kg in 140 of the 152 products, or more than nine out of ten (92%). The levels of MOSH contamination ranged from 0.5 mg per kilo of product to 1152 mg/kg.

We must remember that due to the health risks of these substances, any detectable MOAH presence in food is unacceptable.



Remarks: These results only reflect the results of the tests carried out at the times when the samples of the selected products were taken. The absence of MOAH in the tested products in no way guarantees that all batches of these products are free of these health-endangering substances.

Only preventive measures, monitoring plans and rigorous checks by manufacturers, distributors and public authorities can guarantee that food sold does not contain detectable MOAH.

This is why it is vital and urgent to:

- RECALL THE PRODUCTS WHERE TESTS REVEALED MOAH CONTAMINA-TION ABOVE THE DETECTION LEVEL OF 0.5 MG/KG
- ADOPT A ZERO TOLERANCE RULE FOR MOAH: PROHIBIT THE SALE OF ANY FOOD CONTAINING DETECTABLE MOAH IN EUROPE

Note: If a product has been identified several times as contaminated with MOAH, we report in the tables below the lowest contamination values measured. The full list of all products tested is shown at the end of the report.



FRANCE











| PRODUCT NAME | KNORR Bouillon de légumes sans sel | KNORR / PUGET Bouillon aux herbes et avec de l'huile d'olive | LÉA NATURE JARDIN BIO ÉTIC Bouillon cube Légumes sans sel | AUCHAN POUCE Bouillon de bœuf déshydraté | FRUIT D'OR Oméga 3 |
|-----------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------|-----------------------|
| BATCH NUMBER | L11450D098 | L1165U098 | 221110 | 0205Y1 | L120404098 |
| EXPIRY DATE | 06.2022 | 12.2022 | 10.11.2022 | 03.2023 | 05.11.2021 |
| CONTAMINATION WITH MINERAL OIL AROMATIC HYDROCARBONS (MOAH) IN MG/KG | 44 | 40 | 5,0 | 2,0 | 1,0 |
| CONTAMINATION WITH MINERAL OIL SATURATED HYDROCARBONS (MOSH) IN MG/KG | 417 | 369 | 64 | 26 | 5,4 |

THIS IS A TABLE OF PRODUCTS CONTAMINATED WITH MOAH, LISTED BY COUNTRY. THE FULL LIST OF ALL PRODUCTS PURCHASED AND TESTED IS SHOWN AT THE END OF THE REPORT.











| PRODUCT NAME | KNORR Bratensaft Basis | KNORR Fette Brühe | FERRERO Nutella | ZENTIS NUSSPLI Nuss Nougat Creme |
|-----------------------------------------------------------------------|------------------------------|-------------------------|---------------------------|-------------------------------------------|
| BATCH NUMBER | L01600C098 | L221CH816X05 | L089RG 19:41 | 18:44 16.09.2022 |
| EXPIRY DATE | 12.2021 | 02.2022 | 30.03.2022 | 16.09.2022 |
| CONTAMINATION WITH MINERAL OIL AROMATIC HYDROCARBONS (MOAH) IN MG/KG | 52 | 22 | 2,3 | 1,1 |
| CONTAMINATION WITH MINERAL OIL SATURATED HYDROCARBONS (MOSH) IN MG/KG | 813 | 325 | 14 | 6,5 |

THIS IS A TABLE OF PRODUCTS CONTAMINATED WITH MOAH, LISTED BY COUNTRY. THE FULL LIST OF ALL PRODUCTS PURCHASED AND TESTED IS SHOWN AT THE END OF THE REPORT.













AUSTRIA

| PRODUCT NAME | ILDEFONSO Weihnachtsbehang | ALNATURA Bio Hühner Bouillon | KNORR Goldaugen | MILKY WAY Milky Way cacao and milk duo creme | WILMERSBURGER Pizzaschmelz Vegan Cheese | LINDT Lindt Lindor Milch |
|-----------------------------------------------------------------------|-------------------------------|------------------------------------|---------------------------|-------------------------------------------------------|-----------------------------------------|---------------------------------|
| BATCH NUMBER | L51171190 | | L1113AQ816 *07 | L21056 1WL | 179-2101 | L3741 |
| EXPIRY DATE | 03.2022 | 27.07.2022 | 10.2022 | 25.02.2022 | 06.09.2021 | 31.05.2022 |
| CONTAMINATION WITH MINERAL OIL AROMATIC HYDROCARBONS (MOAH) IN MG/KG | 10 | 7,7 | 6,4 | 3,1 | 1,7 | 0,98 |
| CONTAMINATION WITH MINERAL OIL SATURATED HYDROCARBONS (MOSH) IN MG/KG | 92 | 121 | 66 | 9,9 | 9,3 | 10 |

THIS IS A TABLE OF PRODUCTS CONTAMINATED WITH MOAH, LISTED BY COUNTRY. THE FULL LIST OF ALL PRODUCTS PURCHASED AND TESTED IS SHOWN AT THE END OF THE REPORT.











BELGIUM

| PRODUCT NAME | KNORR Finesse Groenten Légumes Bouillon | DELHAIZE Pâte à tartiner aux noisettes bio |
|-----------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------|
| BATCH NUMBER | L1069A8816*17 | C02-21060-G-20: 55-060 |
| EXPIRY DATE | 09.2022 | 29.08.2022 |
| CONTAMINATION WITH MINERAL OIL AROMATIC HYDROCARBONS (MOAH) IN MG/KG | 6,4 | 0,63 |
| CONTAMINATION WITH MINERAL OIL SATURATED HYDROCARBONS (MOSH) IN MG/KG | 95 | 7,5 |

THIS IS A TABLE OF PRODUCTS CONTAMINATED WITH MOAH, LISTED BY COUNTRY. THE FULL LIST OF ALL PRODUCTS PURCHASED AND TESTED IS SHOWN AT THE END OF THE REPORT.

| PRODUCT NAME | KNORR Groente bouillon | QUAKER Cruesli Kids Chocolate Flavour |
|-----------------------------------------------------------------------|---------------------------|-------------------------------------------------------|
| BATCH NUMBER | L11270R098 | 153C |
| EXPIRY DATE | 11.2022 | 05.03.2022 |
| CONTAMINATION WITH MINERAL OIL AROMATIC HYDROCARBONS (MOAH) IN MG/KG | 36 | 1,4 |
| CONTAMINATION WITH MINERAL OIL SATURATED HYDROCARBONS (MOSH) IN MG/KG | 609 | 9,7 |

THIS IS A TABLE OF PRODUCTS CONTAMINATED WITH MOAH, LISTED BY COUNTRY. THE FULL LIST OF ALL PRODUCTS PURCHASED AND TESTED IS SHOWN AT THE END OF THE REPORT.



CONCLUSIONS AND ACTION NEEDED

The results of the lab tests published by foodwatch over the last six years show that the risk of contamination of our food with MOAH, hydrocarbon derivatives that are dangerous to our health, is everywhere: rice, pasta, cereals, etc. In 2019 we tested infant formula and now everyday foods like stock cubes and spreads. Only a zero-tolerance regulation for MOAH in Europe can protect consumers from these toxic substances which are invisible to the naked eye, but present all the same.

It is the responsibility of public authorities to protect consumers' health.

The European Commission and Member States of the EU simply need to apply the European regulation on food (Regulation (EC) 178/2002), particularly Article 14 on food safety requirements, which stipulates that "food shall not be placed on the market if it is unsafe".

To date, only infant formula has been the subject of a European decision, with a contamination threshold of 1 mg MOAH per kg of product set in 2020^6 . However, there is no firm rule prohibiting

contamination of other foods and obliging manufacturers and distributors to monitor this contamination throughout the production and distribution chain.

In June 2018, in Germany the "Consumer Protection Consortium of the Federal States (LAV)" and the German "Food Industry Association" ("Lebensmittelverband" formerly BLL) launched a joint project to derive so-called "Benchmark levels for mineral oil hydrocarbons (MOH) in foods". These benchmark levels apply to eight product groups on the market and represent the state of good manufacturing and packaging practice. For MOAH, the analytically achievable limit of quantification (LOQmax) is applicable for each of the product categories listed there according to the JRC technical guidance. 10

This is why it is vital and urgent to:

- RECALL THE PRODUCTS WHERE TESTS REVEALED MOAH
 CONTAMINATION ABOVE THE DETECTION LEVEL OF 0.5 MG/KG
- ADOPT A ZERO TOLERANCE RULE FOR MOAH: PROHIBIT THE SALE OF ANY FOOD CONTAINING DETECTABLE MOAH IN EUROPE







- SCIENTIFIC OPINION ON MINERAL OIL HYDROCARBONS IN FOOD, EFSA, 2012: HTTPS://EFSA.ONLINELIBRARY.WILEY.COM/DOI/10.2903/J.EFSA.2012.2704
- 2. RESULTS OF TESTS CARRIED OUT BY FOODWATCH ON 120 PRODUCTS IN 2015: HTTPS://WWW.FOODWATCH.ORG/EN/REPORTS/2015/MINERAL-OIL-IN-FOOD/
- 3. COMMISSION RECOMMENDATION (EU) 2017/84 OF 16 JANUARY 2017 ON THE MONITORING OF MINERAL OIL HYDROCARBONS IN FOOD AND IN MATERIALS AND ARTICLES INTENDED TO COME INTO CONTACT WITH FOOD:
 - HTTPS://EUR-LEX.EUROPA.EU/LEGAL-CONTENT/EN/TXT/?URI=CELEX%3A32017H0084
- 4. FOODWATCH PUBLISHES THE RESULTS OF NEW TESTS ON INFANT FORMULA BOUGHT IN FRANCE, GERMANY AND THE NETHERLANDS, NOVEMBER 2019:

 HTTPS://WWW.FOODWATCH.ORG/EN/NEWS/2019/FOODWATCH-LABORATORY-TESTS-SUSPECTED-CARCINOGENIC-MINERAL-OIL-RESIDUES-IN-BABY-MILK/
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- 9. MORE DETAILED TECHNICAL REPORT ON FOODWATCH'S TEST RESULTS OF 2021:

 HTTPS://WWW.FOODWATCH.ORG/FILEADMIN/-INT/MINERAL_OIL/DOCUMENTS/2021-12-03_TECHNICAL_MINOIL_PROJECT_REPORT.PDF
- 10. CONSUMER PROTECTION CONSORTIUM OF THE FEDERAL STATES / WORKING GROUP ON FOODSTUFFS AND CONSUMER GOODS, WINE AND COSMETICS UPDATE: BENCHMARK LEVELS FOR MINERAL OIL HYDROCARBONS (MOH) IN FOODS

 (AUGUST 2021) AVAILABLE AT:
 - HTTPS://WWW.LEBENSMITTELVERBAND.DE/DE/AKTUELL/20211026-AKTUALISIERUNG-MOH-ORIENTIERUNGSWERTE



LIST OF ALL PRODUCTS TESTED

FRANCE

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|----------------------------------------------------------------------|-----------------------|----------------|------------------|------------------|
| VIGEAN Huile vierge biologique de noix de coco | 20-062A | 02.03.22 | 1,4 | < 0,5 |
| LUCIEN GEORGELIN Pâte à tartiner Bio | 16:13J | 12.05.24 | 3,8 | < 0,5 |
| NUTELLA Pate à tartiner aux noisettes et au cacao 200 g | L076RV | 02.22 | 3,0 | < 0,5 |
| VAHINÉ Noix de coco rapée | L1097 | 07.04.22 | 5,6 | < 0,5 |
| MONOPRIX Poudre instantanée goût choco | L1090 | 03.23 | 1,4 | < 0,5 |
| MAGGI Bouillon Kub Volaille France – 25% sel | 10610364 | 03.22 | 2,7 | < 0,5 |
| LOTUS Biscoff' The original speculoos | L1141309 | 21.06.22 | 3,0 | < 0,5 |
| LIDL Choco Nussa | RA 800912 30125548 | 16.09.22 | 5,5 | < 1,0 |
| KNORR Bouillon de légumes sans sel | L11450D098 | 06.22 | 417 | 44 |
| LÉA NATURE JARDIN BIO ETIC | 100822 | 10.08.21 | 36 | 5,3 |
| Bouillon cube légumes sans sel | 221110 | 10.11.22 | 64 | 5,0 |

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|------------------------------------------|---------------------|----------------|------------------|------------------|
| KARA Crème de coco onctueuse | CB0212 4 | 12.08.22 | < 0,5 | < 0,5 |
| KNORR/PUGET Bouillon aux herbes et avec | L11650U098 | 12.22 | 369 | 40 |
| de l'huile d'olive | L11670U098 | 12.22 | 574 | 48 |
| BJORG Crème de coco légère bio | I:201030 | 30.10.21 | < 0,5 | < 0,5 |
| BANANIA Original | L1141 | 05.23 | 1,3 | < 0,5 |
| AUCHAN POUCE | 0950Н0 | 01.23 | 15 | 2,5 |
| Bouillon de bœuf déshydraté | 0205Y1 | 03.23 | 26 | 2,0 |
| NESQUIK Bio All natural 350 g | 10530835U1A | 11.21 | 4,8 | < 0,5 |
| OREO Original 220g | OVI0511921 | 31.05.22 | 2,3 | < 0,5 |
| SUZI WAN Crème de Coco | 5A601 103C18GF99 | 13.04.22 | < 0,5 | < 0,5 |
| NESTLÉ Chocapic | L1148083800E1 | 05.22 | < 0,5 | < 0,5 |
| QUAKER Cruesli chocolat noir | 153B 1R | 05.03.22 | 3,8 | < 0,5 |



FRANCE (CONTINUED)

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|--------------------------------------------------------|-------------------|----------------|------------------|------------------|
| KELLOGG'S EXTRA Chocolat noir et noisettes grillées | SA 2SN | 05.07.22 | 2,3 | < 0,5 |
| CHABRIOR Muesli Crisp chocolat au lait | 13:14 L1 | 28.05.22 | 3,5 | < 0,5 |
| DANETTE Chocolat | Z8225 | 09.22 | 0,5 | < 0,5 |
| HERTA Trésor de Grand-mère feuilletée | 1232001900 E0 | 21.09.21 | 2,0 | < 0,5 |
| MARQUE REPÈRE (E.LECLERC) La sablée - Tablier blanc | D2_432339 | 03.10.21 | 0,7 | < 0,5 |
| CARREFOUR Pâte feuilletée Classic | 00 JT234/1836H | 22.09.21 | 1,8 | < 0,5 |
| FRUIT D'OR | L120404098 | 05.11.21 | 5,4 | 1,0 |
| Oméga 3 | L125904098 | 30.12.21 | 38 | 1,9 |
| MONOPRIX Pâte brisée | D2_0257325 | 18.09.21 | 2,3 | < 0,5 |
| LIDL Pâte brisée - Toque du chef | 59UH232/ 3443H | 09.09.21 | 1,4 | < 0,5 |
| CROUSTIPATE Feuilletée avec de la farine de riz | L/RD 18/09/21 | 18.09.21 | 1,0 | < 0,5 |

NETHERLANDS

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|-------------------------------------------------|------------------|----------------|------------------|------------------|
| LU PRINCE Start Naturel Cookies 300 g | OHF4012312 2 | 31.03.22 | 3,2 | < 0,5 |
| BOLLETJE SCHUDDEBUIKJES Speculaas 300 g | L018278B | 31.03.22 | 3,7 | < 1,0 |
| DE RUIJTER Vlokfeest 300 g | L22 03:05 | 08.22 | 3,3 | < 1,0 |
| BE-KIND Caramel Almond & Sea salt Bars | 121E22GU01 | 28.08.22 | < 0,5 | < 0,5 |
| KNORR | L11270R098 | 11.22 | 609 | 36 |
| Groente bouillon | L11660D098 | 12.22 | 1152 | 58 |
| MAGGI Kippen bouillon | 11100364 | 04.22 | 4,8 | < 0,5 |
| LIGA Milkbreak Melk Biscuits | OHT091 221 13-7 | 28.02.22 | 1,6 | < 0,5 |
| AH BOUILLON Bospaddenstoel | 15.04.2023 | 15.04.23 | < 0,5 | < 0,5 |
| SULTANA Naturel Fruit Biscuits | LZ11956 | 03.22 | < 0,5 | < 0,5 |
| KELLOGG'S Tresor Melkchocolade | L1167 034510 | 12.04.22 | 1,2 | < 0,5 |



NETHERLANDS (CONTINUED)

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|---------------------------------------------|------------------------|----------------|------------------|------------------|
| CALVÉ Pindakaas 350 g | L118900A69 05:31 | 03.04.22 | < 0,5 | < 0,5 |
| NUTELLA Hazelnootpasta met cacao | L161RVC09:46 | 10.06.22 | 3,8 | < 0,5 |
| LOTUS Biscoff The Original Speculoos | L1186409/1925 | 05.08.22 | 2,9 | < 0,5 |
| KELLOGG'S Froot Loops | L1 160 034510 12:29 | 09.06.21 | 0,80 | < 0,5 |
| CALVÉ Pindakaas 350 g | L120300A69 | 18.04.22 | 0,56 | < 0,5 |
| TREK Protein Havermout Repen | L5 18-07-2022 | 18.07.22 | 1,9 | < 0,5 |
| JUMBO Groente Bouillon | 62517-1017 | 11.09.22 | 1,8 | < 0,5 |
| CRUESLI KIDS Chocolate Flavour | 153C 22:12 2R | 05.03.22 | 9,7 | 1,4 |
| AH BLADERDEEG op rol | 8718907453196 | 06.10.21 | 3,4 | < 0,5 |
| DANEROLLES croissants classic | 06:25 02 | 21.09.21 | 1,9 | < 0,5 |

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|------------------------------------------|---------------------|----------------|------------------|------------------|
| VIOLIFE Greek White | 21175A | 24.04.22 | 6,7 | < 0,5 |
| AH Plantaardige plakken | SN1792E | 25.12.21 | 6,5 | < 0,5 |
| AH Verse original croissanst | 0222920:35 S1 | 25.10.21 | 3,6 | < 0,5 |
| OATLY! Romige haver spread | AA000379 | 08.12.21 | 2,3 | < 0,5 |
| JUMBO Bladerdeeg met Bakpapier | 121114006 | 16.09.21 | 2,1 | < 0,5 |
| KOOPMANS Bladerdeeg Origineel | L454121131 10:16 | 11.22 | 4,0 | < 0,5 |
| CONSENZA Puff Pastry | 30-05-22 | 30.05.22 | 1,0 | < 0,5 |



GERMANY

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|--------------------------------------------------|------------------|----------------|------------------|------------------|
| BEN & JERRY'S Cookie Dough | L1168BM020 | 12.22 | 2,1 | < 0,5 |
| RAPUNZEL Tiger Creme | 4000010105A | 19.10.22 | 1,5 | < 0,5 |
| ALNATURA Haselnuss-Nougat | 4000009445 | 01.09.22 | 4,6 | < 0,5 |
| GUT & GÜNSTIG Frischer Blätterteig | 32323 | 14.09.21 | 2,8 | < 0,5 |
| HENGLEIN Frischer Blätterteig | 32323 06:14 | 14.09.21 | 3,5 | < 0,5 |
| VEGANZ Geniesserstück | 608527051 | 18.12.21 | 4,1 | < 0,5 |
| BEDDA Scheibenkäse | 22.12.2021 | 22.12.21 | 1,0 | < 0,5 |
| SMARTIES Pop up Eis | L-AR1070A1 | 03.23 | 1,3 | < 0,5 |
| SIMPLY V Natur | 13120120 | 18.10.21 | 2,4 | < 0,5 |
| KNACK & BACK Sonntagsbrötchen | 0200 15:5052 | 03.10.21 | < 0,5 | < 0,5 |

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|---------------------------------------------|------------------|----------------|------------------|------------------|
| REWE BIO Vegan Mozzarisella | 284 | 20.10.21 | 12 | < 0,5 |
| SCHÖLLER Kaktus 4 Friends | LFE 1133 22FR | 05.23 | 6,1 | < 0,5 |
| REWE BESTE WAHL Blätterteig | 31333 | 21.09.21 | 4,3 | < 0,5 |
| NESTLE Nesquik Snack | L12092 | 01.10.21 | 2,5 | < 0,5 |
| KNORR Feinschmecker Sauce Hollandaise | L11380D803 | 11.22 | 3,7 | < 0,5 |
| DE BEUKELAER Prinzenrolle | 174V1 | 01.04.22 | 4,6 | < 0,5 |
| KNORR Helle Soße | L1131 | 11.22 | 3,4 | < 0,5 |
| KNORR Sauce Hollondaise | L107802777 | 14.12.21 | 6,0 | < 0,5 |
| KÖLLN Knusper Klassik Hafer Müsli | L1273 | 07.06.22 | 1,8 | < 0,5 |
| VITALIS Schoko Müsli | L208 | 08.22 | 1,1 | < 0,5 |



GERMANY (CONTINUED)

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|-------------------------------------------------------------------|-----------------------|----------------|------------------|------------------|
| PFANNI Kartoffelklöße | L 108810805 | 06.22 | < 0,5 | < 0,5 |
| STORCK Toffifee | MB34M | 01.03.22 | 1,1 | < 0,5 |
| FERRERO Yogurette | L175RG37 | 05.01.22 | 2,1 | < 0,5 |
| FERRERO | L089RG 19:41 | 30.03.22 | 14 | 2,3 |
| Nutella | L272RG-18:23 | 29.09.22 | 9,8 | < 1,0 |
| ZENTIS | 18:44 16.09.2022 | 16.09.22 | 6,5 | 1,1 |
| Nusspli | 21:41 19.11.2022 | 19.11.22 | 8,0 | 1,2 |
| RITTER SPORT Knusperkeks | H2P128060 08:44 | 28.04.22 | 1,3 | < 0,5 |
| LEIBNIZ Pickup! | F1302 | 01.08.22 | 3,5 | < 0,5 |
| GÜLDENHOF Geflügelsalami mit Pflanzenfett geräuchert | 14.10.2021 | 14.10.21 | 1,6 | < 0,5 |
| LINDT Lindor Milch | L5701 13 007/2022 | 07.22 | 5,5 | < 0,5 |
| CHOCEUR Keks Milchcreme | L41292B 30.04.2022 | 30.04.22 | 1,4 | < 0,5 |

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|--------------------------------------|------------------------|----------------|------------------|------------------|
| LE GUSTO Klare Hühnerbrühe | 03.09.2022 | 03.09.22 | < 0,5 | < 0,5 |
| JA! NussNougat Creme | L122164 | 10.22 | 4,0 | < 0,5 |
| NUSSKATI Nuss Nougat Creme | N1 07:06 30.06.2022 | 30.06.22 | 6,4 | < 0,5 |
| NUSSETTI Nuss Nougat Creme | L1215506/0131 | 03.09.22 | 6,5 | < 0,5 |
| BISCOTERIA Pausenschnitte | B L136940 | 30.05.22 | 4,0 | < 0,5 |
| CARAT Klare Gemüsebrühe | 29.10.2021 | 29.10.21 | 4,0 | < 0,5 |
| KNORR | L221CH816X05 | 02.22 | 325 | 22 |
| Fette Brühe | L1014CH816X22 | 07.22 | 465 | 28 |
| KNORR Bratensaft Basis | L01600C098 | 12.21 | 813 | 52 |
| | L03360A098 | 06.22 | 516 | 82 |
| MAGGI Fette Brühe | 0342070F 14:25 | 02.22 | 4,0 | < 0,5 |



AUSTRIA

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|--------------------------------------------|---------------------|----------------|------------------|------------------|
| BILLA BIO Nuss-Nougat-Creme | 12621E 17:31 | 07.22 | 2,8 | < 0,5 |
| NUTELLA Nuss-Nougat-Creme | L146RVC 10:54 | 26.05.22 | 4,1 | < 0,5 |
| MILKY WAY Cacao + Milk Duo Creme | L21056 1WL | 25.02.22 | 9,9 | 3,1 |
| MILKA Haselnusscreme 350 g | 2B00911134/ 0002 | 17.12.21 | 11,0 | < 0,5 |
| KNORR | L1113AQ816*07 | 10.22 | 66 | 6,4 |
| Goldaugen | L1218AR816*08 | 02.23 | 102 | 7,0 |
| MAGGI Rindfleischsuppe | 10470824E1 | 02.22 | 11 | < 0,5 |
| KNORR BIO Gemüse Bouillon Pulver | L10891N809 | 09.22 | 1,8 | < 0,5 |
| SUCHARD Express Kakao | L 0331 08:13 | 02.02.23 | 5,3 | < 0,5 |
| S BUDGET Instant Kakao | L 1301 09:02 | 05.23 | 1,1 | < 0,5 |
| NATUR PUR Bio-Trink-Kakao | L1381 | 05.23 | 2,7 | < 0,5 |

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|---------------------------------------------------------------|------------------|----------------|------------------|------------------|
| JA! Natürlich Bio Trinkkakao | L3580 | 06.22 | 0,91 | < 0,5 |
| BENCO Trinkkakao | ZBL07117 42 B | 28.04.23 | 1,8 | < 0,5 |
| NESTLE Nesquik | 10900973 T | 09.22 | 2,5 | < 0,5 |
| SOYANANDA Frisch Vegan Cheese «Creme Chesse» | 10.09.21 | 10.09.21 | 7,4 | < 1,0 |
| MOZZARISELLA Klassisch Vegan Cheese «Mozzarella» | 261 | 03.10.21 | 16 | < 0,5 |
| VIOLIFE Greek White Vegan Cheese «Feta» | 21159 B | 08.04.22 | 5,2 | < 0,5 |
| WILMERSBURGER | 179-2101 | 06.09.21 | 9,3 | 1,7 |
| Pizzaschmelz Vegan Cheese | 221-2101 | 18.10.21 | 7,3 | 1,8 |
| CLEVER Blätterteig Puff Pastry | 121112103 | 28.08.21 | 2,2 | < 0,5 |
| TANTE FANNY Frischer Blätterteig verfeinert mit Butter | 121112976 | 06.09.21 | 2,0 | < 0,5 |
| S BUDGET BätterteigButter | 121112826 | 05.09.21 | 2,5 | < 0,5 |



AUSTRIA (CONTINUED)

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|-------------------------------------------------------------|------------------|----------------|------------------|------------------|
| PENNY Ready Frischer Blätterteig | 121113278 | 08.09.21 | 2,4 | < 0,5 |
| OREO Original Cocoabiscuits filled with Vanillacream | OPA6112132 L4 | 31.05.22 | 2,2 | < 0,5 |
| LINDT | L4971 | 30.11.21 | 47 | 3,3 |
| Lindor Milch | L3741 | 31.05.22 | 10 | 0,98 |
| MILKA MMMAX Schoko&Keks | 00V0812362 | 12.06.22 | 3,2 | < 0,5 |
| MANNER Haselnuss Mignon | L15881139 | 19.08.22 | 4,3 | < 0,5 |
| DE BEUKELAER Prinzen Rolle | 081 T2 | 01.02.22 | 1,7 | < 0,5 |
| NAPOLI Dragee Keksi Classic | L57521118 | 28.04.22 | 3,4 | < 0,5 |
| NIEMETZ Schwedenbomben | L212161 | 31.08.21 | 8,2 | < 0,5 |
| FERRERO Kinderschokolade | L151RG08 | 11.01.22 | 1,8 | < 0,5 |
| ALNATURA | 18.04.2022 | 18.04.22 | 117 | 12 |
| Bio Hühner Bouillon | 27.07.2022 | 27.07.22 | 121 | 7,7 |

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|----------------------------------------------|------------------|----------------|------------------|------------------|
| LINDT Lindor Dunkel | L5851 | 31.01.22 | 8,6 | < 0,5 |
| MANNER Weihnachtssterne Nougat | L51801223 | 03.22 | 6,6 | < 0,5 |
| CASALI Tor Nusskugeln | L51171253 | 03.22 | 2,9 | < 0,5 |
| KUFFERLE Schoko Schirmchen | 11 L6671 | 06.22 | 6,8 | < 0,5 |
| BETTHUPFERL Pischinger Dark Chocolate | L243 | 31.05.22 | 5,6 | < 0,5 |
| ILDEFONSO Weihnachtsbehang | L51171190 | 03.22 | 92 | 10 |



BELGIUM

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|--------------------------------------------|----------------------------|----------------|------------------|------------------|
| LOTUS Madelaine Chocolat | 29/10/2021 G | 29.10.21 | 3,9 | < 0,5 |
| HEINZ Venz Flocons de crocodile | L191824 | 04.22 | 2,8 | < 0,5 |
| HEINZ Kwatta puur fondant | L1152209/1203 | 07.22 | 5,9 | < 0,5 |
| DELHAIZE Bio cookies chocolate chip | 21170 | 19.02.22 | 2,4 | < 0,5 |
| KNORR Groenten Legumes Bouillon | L104700N32 | 08.22 | 1,9 | < 0,5 |
| KNORR | L1069A8816*07 | 09.22 | 95 | 6,4 |
| Finesse Groenten Legumes Boullion | L1069A8816*06 | 09.22 | 123 | 8,4 |
| DELHAIZE | C02-21054-G- 18: 12-054 | 23.08.22 | 7,7 | 0,71 |
| Pate a tartiner aux noisette (bio) | C02-21060-G-20: 55-060 | 29.08.22 | 7,5 | 0,63 |
| WHOLE EARTH peanut choco hazelnut spread | 98123 02:15D | 02.06.22 | 1,3 | < 0,5 |
| PENOTTI Praline spread | L106733 | 05.22 | 6,5 | < 0,5 |
| DELHAIZE Speculoos spread | L103528 | 04.04.22 | 2,6 | < 0,5 |

| PRODUCT NAME | BATCH- NUMBER | EXPIRY DATE | MOSH IN MG/KG | MOAH IN MG/KG |
|---------------------------------------------------------------------|-------------------|----------------|------------------|------------------|
| DELHAIZE Bladerdeeg- Pate Feuilletee | D 4G0719338 | 02.10.21 | 2,7 | < 0,5 |
| DELHAIZE Kruimeldeeg- Pate Brisee | D2_1357344 | 08.10.21 | 1,1 | < 0,5 |
| DELHAIZE Bladerdeeg- Pate Feuilletee- Blaetterteig bio | 01P08 V 09:29D | 28.09.21 | 1,2 | < 0,5 |
| VIOLIFE Greek White | 21176 A 08:17 | 25.04.22 | 6,2 | < 0,5 |
| VIOLIFE Mozzerrella flaveroured grated | 21145B 17:53 | 25.01.22 | 2,3 | < 0,5 |
| NURISHH Mozzerella flaveroured grated | SN1831E 06:56 | 30.10.21 | 2,9 | < 0,5 |
| ALPRO cooking coconut | BA 2416 17:20 | 14.03.22 | < 0,5 | < 0,5 |
| HEINZ Boerinneke sans lactose gluten (bio) | L1179 | 28.09.22 | 2,9 | < 0,5 |
| FERRERO Nutella | L250RVC 12:47 | 07.09.22 | 4,1 | < 0,5 |