



We create chemistry

North American Biodegradation & Microplastics Center of Excellence

Located in Wyandotte, MI, the North American Biodegradation & Microplastics Center of Excellence (CoE) supports customers seeking a broad range of biodegradable circular economy solutions. Our targets include: providing holistic, tailored solutions through scientific studies and consulting, increasing speed-to-market for circular economy products, and advocating on sustainability topics.



**BASF Center of
Excellence**
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Together,
we create chemistry
for a sustainable
future.

The North American Biodegradation Laboratory

As a part of the Biodegradation and Microplastics Center of Excellence, the North American Biodegradation Lab provides biodegradation and disintegration testing, in-depth consulting, and expert advocacy for our regional customers and Operating Division (OD) partners. Our biodegradation and disintegration methods are based on international standards and our lab practices are shared across the global BASF network. From routine testing to in-depth research, we welcome colleagues and customers to bring inquiries that require science-based solutions.

Our current methodologies include:

- Biodegradation Testing according to OECD 301F “Ready Biodegradability”: an aerobic biodegradation test in aqueous inoculum
- Disintegration Testing according to ISO 20200 for Industrial Composting Conditions
- Disintegration Testing under Home Composting Conditions

The North American Microplastics Research Team

Together with our global BASF microplastics experts, North American colleagues have generated cutting-edge breakthroughs for microplastics analytics, characterization, and extraction. If you are interested in the fragmentation of plastics, understanding the fate of plastic materials, or want to know if microplastics are present, we can provide guidance and expertise to generate answers. Our team is recognized as leaders in microplastics analytics and science.

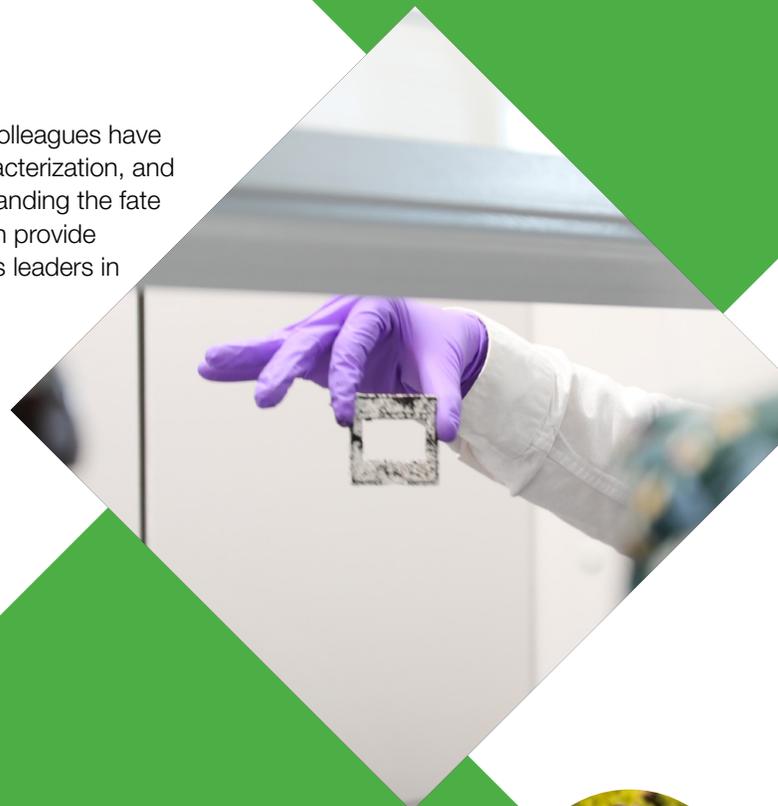
Available analytical instrumentation for microplastics characterization:

- Pyrolysis GC-MS (qualitative and quantitative chemical identification)
- Raman Spectroscopic Imaging System (chemical imaging)
- Light Microscopies
- IR Microscopy
- SEM / EDS and TEM
- DLS or ELS
- AFM
- Suite of physical analytics (DSC, TGA, etc.)
- HPLC and GC with high resolution MS for additives, leachables, extractables



Biodegradation and Disintegration Testing offerings

We expect to expand our offerings over time and will focus on support of products primarily in food service and packaging, agriculture, detergents, cleaning, and cosmetics industries.



Outreach and advocacy

Our CoE offers expert outreach and advocacy services on the topics of biodegradables and microplastics including seminars, one-on-ones, and strategic efforts in consortia. Should you wish to learn more about our advocacy offerings please contact the CoE Leader ((below).

Center of Excellence Contact

For questions about the Center of Excellence offerings, potential synergies, or to start a collaboration please contact the CoE Lead Dr. Jeanne Hankett (jeanne.hankett@BASF.com). Collaborations are possible with and through BASF operating divisions, academia, and customers.



Dr. Jeanne Hankett