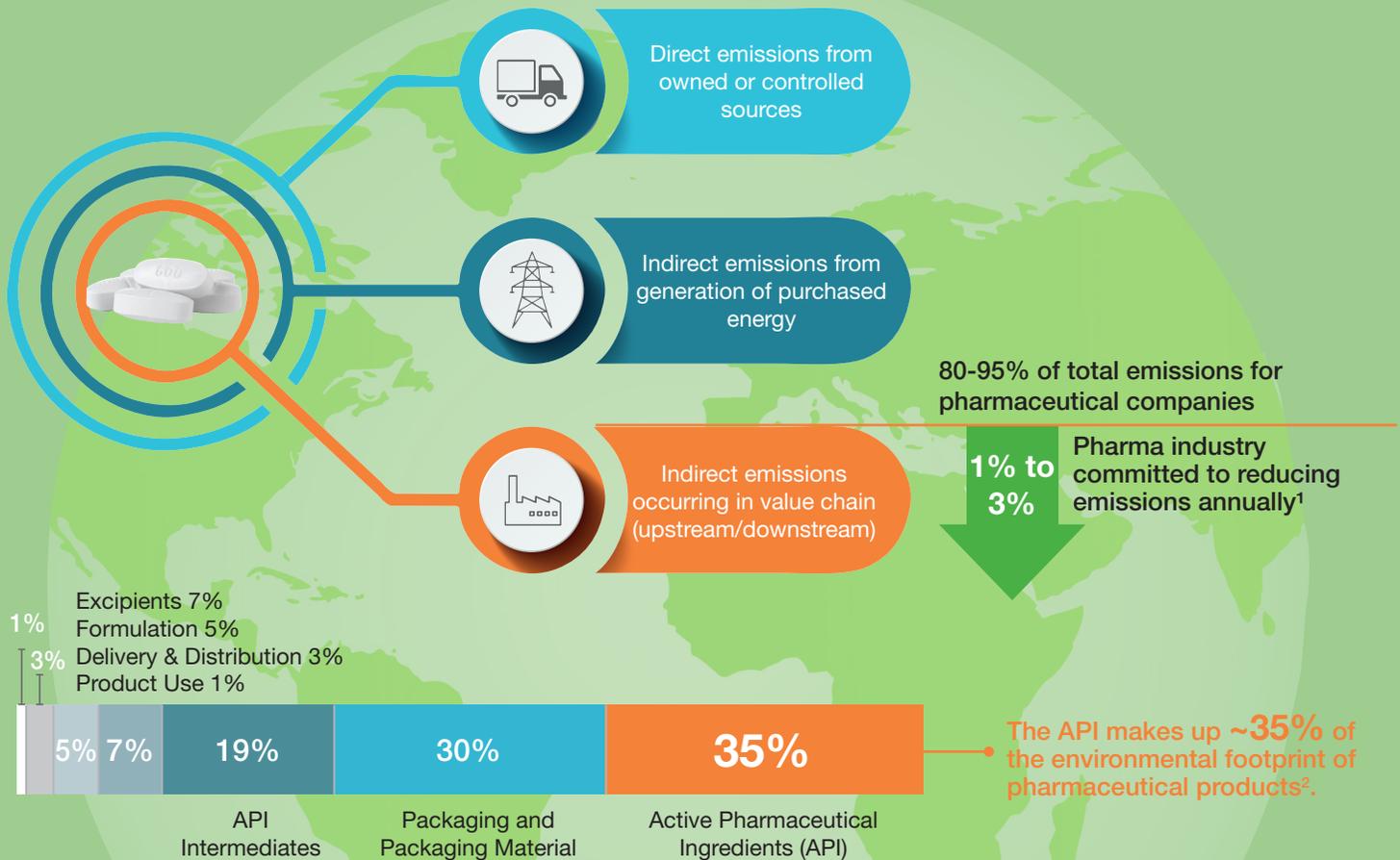


# Sustainable solutions

Striving to make the world's most environmentally friendly ibuprofen

## How your ibuprofen supplier impacts your sustainability goals



## We are uniquely positioned to support your goals



Ibuprofen carbon footprint available\* according to ISO norms and Greenhouse Gas Protocol



Expertise in life cycle assessment methodology



Continuous evaluation to reduce the carbon footprint, including investments in renewable energy

Contact your BASF Account Manager to get connected with our Sustainability Team.

[pharma.basf.com](http://pharma.basf.com)

\* Available upon signing an environmental NDA

<sup>1</sup> BASF analysis of science-based targets in 16 corporate sustainability reports from the pharmaceutical industry (2019-2020)

<sup>2</sup> Pharmaceutical Supply Chain Initiative (PSCI) estimated pharmaceutical environmental footprint extrapolated from multiple Lifecycle Assessment sources (2021)

**BASF**  
We create chemistry

# Sustainable ibuprofen production

Spotlight on BASF's ibuprofen production facility | Bishop, Texas



Our production process utilizes innovative, efficient technology that has revolutionized bulk pharmaceutical manufacturing.

BASF by the Numbers

**75+**

Years experience in APIs

**25+**

Years manufacturing ibuprofen at Bishop

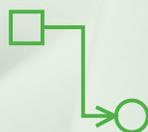
**20+**

Years experience in environmental footprint calculations

Winner of the U.S. Presidential Green Chemistry Challenge<sup>1</sup>



Embodies 6 principles of green chemistry<sup>2</sup>



4 production steps versus 6 or 7 steps with other suppliers



No chromium used in process  
Using recoverable palladium and nickel that can be recombined in catalytic system and re-circulated.



Based on independent scientific publication, >30% of waste is avoided compared to competitors due to higher atom efficiency of BASF process.<sup>3</sup>

To learn more about our ibuprofen production and portfolio, visit [pharma.basf.com](http://pharma.basf.com)

<sup>1</sup> 1997 EPA Greener Synthetic Pathways Award (originally won by BHC Company, which was acquired by BASF)

<sup>2</sup> Six relevant principles: prevention of waste, atom economy, minimization of solvents, energy efficiency, reduce derivatives, and catalysis; ACS 12 Principles of Green Chemistry

<sup>3</sup> Poliakoff, M., Licence, P. Green chemistry. Nature 450, 810-812 (2007). <https://doi.org/10.1038/450810a>