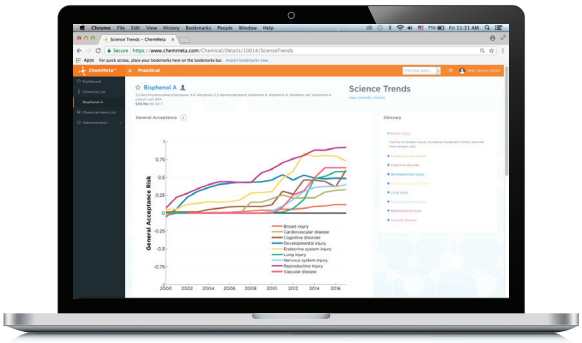
ChemMeta®

by Praedicat®

Science Based Product Stewardship Analytics + Software



Praedicat mines peer-reviewed science journals.

Over 28 MILLION Journal Articles...
to identify signals of emerging risk **AT SCALE**
and anticipate **tomorrow's product risk.**

Praedicat models the **state and evolution of scientific literatures** to characterize the risk.

ChemMeta can help businesses to identify, track, and manage emerging risks emanating from their ingredients and products in an unbiased and systematic way at "machine scale."

- Track the toxicology and environmental health literatures on thousands of chemicals.
- Spot the new science as it emerges, identify any risk trends and predict what's next.
- Rank the chemicals in your portfolio. Which are the most risky for you? Which could be growth opportunities?

SCALABLE

Evaluating thousands of hypothesized risks

Tracking "emerging risks" as they develop and mature

SCIENCE-BASED

Rigorous and objective

TRANSPARENT

No "black box"

Access to science behind the analytics

ACTIONABLE

Diverse risks characterized on a common scale

Praedicat uses AI to read and summarize scientific literatures. The algorithms behind ChemMeta scan millions of peer-reviewed global scientific journal articles, refreshing frequently to capture new articles. Metadata is then synthesised, and the state and future evolution of scientific literatures are modeled to characterize the risk.

We have dozens of products and hundreds of ingredients. All of them are producing new science every year, and some with hundreds of new articles. It is impossible to keep up.

Senior Risk Executive
Food Company

If we tried to evaluate these substitutes, it would take ten people a month to do what you did in a week.

Senior Product Stewardship Executive
Chemical Company

Get Ahead of the Curve

As businesses seek to outpace their competition, they need to design and bring to market safe products faster than ever, and identify emerging risk earlier than ever. Product stewardship and sustainability can no longer be based only on good judgment. Today it requires technology and data as well.

Better Products. Safer. Faster.

- Praedicat brings the most important information to the surface, allowing corporates to make scientifically-grounded decisions more quickly.
- Business intelligence on scientific literatures reduces disagreements and aligns teams.
- Evaluate product substitutions faster and make decisions that will last.

ChemMeta has Widespread Application

- Product Stewardship
- Research & Development
- Environmental, Health & Safety
- Product Substitution & Reformulation
- Mergers & Acquisitions
- Regulatory & Compliance

How ChemMeta Works

01 ChemMeta uses cutting-edge machine learning and natural language processing to build an "AI" that reads scientific articles searching for hypotheses that chemicals cause bodily injury and other harms. For example, "Chemical X causes cancer."

02 ChemMeta combines articles into literature statistics to capture the state of the science, using a set of variables such as type of study, quality of the journal, coherence of the literature findings, direction of results and other metadata. The method produces an algorithmic Hill Criteria which simulates a weight of evidence determination.

03 ChemMeta updates the literatures with new studies every week, providing up to date literature synthesis and innovative statistics to capture the direction of the literature. Praedicat also predicts the state of the science in the future using predictive analytics on today's science.

04 ChemMeta delivers the results to customers in a convenient, intuitive, web-based application. It displays visualizations that companies can use to answer questions such as, "Does Chemical X pose a future risk?" Equipped with this actionable foresight, product stewardship can make profitable product development decisions and build safer products.

Allianz and Praedicat are partnering to advance product stewardship and risk management with forward looking science-based analytics.

CONTACT: To learn more about Praedicat's science-based emerging risk analytics, contact **sales@praedicat.com**

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