Biotechnology Creating Performance Materials & Ingredients







A Better Source of Oil

Our sugar-to-oil platform can make many types of oil in a matter of days, supporting more resilient supply chains and domestic manufacturing of biobased materials and ingredients.



Consumer Product Applications



Local, Rain-Fed Sugarcane

Sunlight



Microbial Fermentation (Algae)

Materials

Polymers

ALGAE

OILS

Ingredients



WHY **ALGAE OIL?**

- On demand production using fermentation
- Faster process oil in days
- 100% traceable
- Less reliance on water, land and fertilizer use
- No geographic constrains
- Lower environmental footpri







PRODUCT



100%

BENIGN



CARBON SOURCE



BIOBASED CONTENT (ASTM D6866)



TOXICITY (RESTRICTED SUBSTANCE



ENVIRONMENTAL **PERSISTENCE**













Powered by Checkerspot's

BIOLOGY AND DESIGN LABS







Alameda, CA + Salt Lake City, UT



37k ft²



50+ designers, engineers, and scientists



Thousands of tons of material production capacity per year

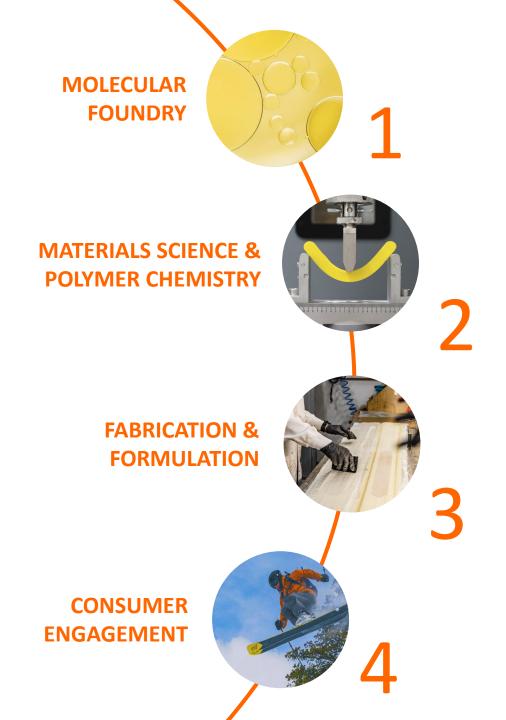






From Lab to Consumer

Checkerspot's integrated innovation platform delivers high performance biomaterials.



CUSTOMIZATION LEVERS AVAILABLE THROUGH THE **MOLECULAR FOUNDRY**

Available through both classical strain improvement and genetic engineering routes

CHAIN LENGTH

FUNCTIONAL GROUPS

UNSATURATION

POSITION

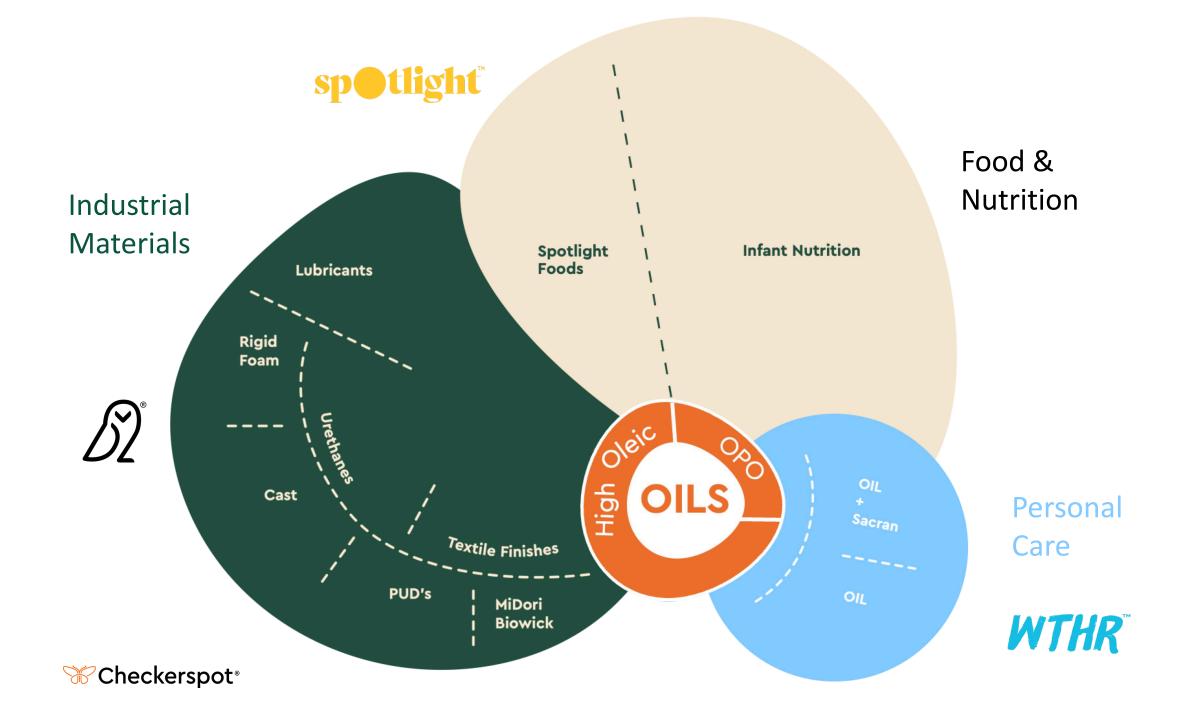
$$R_1$$
 R_2
 R_1
 R_2
 R_1
 R_2
 R_1
 R_2
 R_3

OCCUPANCY

$$R_1$$
 R_2

$$R_1$$
 R_2





MATERIALS SCIENCE & POLYMER CHEMISTRY

We have five materials in market, with a pipeline in development

IN MARKET



Oil
High oleic microalgae oil



Rigid PU Foam Systems
Up to 42% biobased



Cast PU Systems
Up to 71% biobased thermoset PUs



MiDori® bioWick WA

100% biobased textile wicking finish
Commercialized by Beyond Surface Technologies



SpiralMade®
Recycled composite from production waste

PIPELINE



Flexible Urethane Foam
Inviting partner opportunities



Tooling Board FoamWith existing partner



PFAS-Free DWR
Developing Durable Water Repellent replacement for PFAS

















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For A Brighter Future

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