



Mechanisms for Data Sharing

Green Chemistry and Commerce Council

Innovators Roundtable

27 April 2010

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GREENBLUE

CleanGredients[®] is a project of GreenBlue[®].



CLEANGREDIENTS

CleanGredients is an online database of ingredient chemicals used in cleaning products.




CLEANGREDIENTS > OBJECTIVE

Encourage innovation in chemical product formulation and green chemistry.



CLEANGREDIENTS > THEORY

Transparency promotes innovation.



CLEANGREDIENTS > THE CHALLENGE

“

How can we share toxicological data without compromising proprietary business information?

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CLEANGREDIENTS > THE APPROACH

Share data at a resolution that is precise enough to indicate hazard or benefit, but not precise enough to reveal proprietary information.



+ Company Information

+ General

+ Physical-Chemical

+ Human Health

- Environmental

Acute Aquatic
ToxicityAdditional Aquatic
Toxicity

Biodegradation

Degradation Products
of Concern

DfE Screen

Life Cycle
Assessment

Origin of Feedstock

Other Product
Features

+ Regulatory

+ Tier 1

+ Tier 2

+ Tier 3

Components

Environmental attributes for Tomadol 91-8

[Edit](#)

Acute Aquatic Toxicity

Reviewed Category ⓘ

Reviewed category 10~100 mg/L

Algae ⓘ

IC₅₀ 10~100 mg/L

Invertebrate ⓘ

EC₅₀ 10~100 mg/L

Fish ⓘ

LC₅₀ 10~100 mg/L

Biodegradation ⓘ

% degraded in 28 days ≥60% ThOD/ThCO₂ (≥70% DOC)

10-day window Meets 10-day window

Test Method OECD 301 series test

Degradation Products of Concern ⓘ

Degradation Products of Concern None known

DfE Screen ⓘ

Passes DfE Screen Yes

Additional Aquatic Toxicity

Life Cycle Assessment ⓘ

Origin of Feedstock ⓘ





CLEANGREDIENTS > APPROACH

Provide information needed by companies to design better products.

Neither a simple list, ranking system, nor a certification program.

CleanGredients is designed and intended to be as open and transparent as possible, not a black box.

Focus on hazard and information relevant to environmental purchasing, eco-labeling, and sustainability.

CLEANGREDIENTS > DfE SCREEN

CleanGredients facilitates U.S. EPA DfE recognition by listing chemicals that are “pre-screened” against the DfE’s human and environmental health criteria.





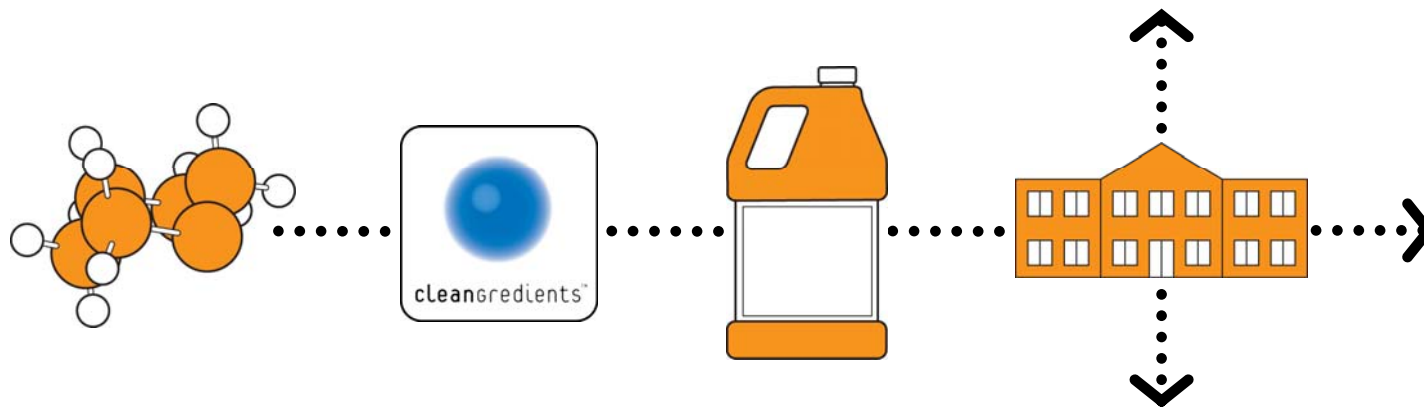
CLEANGREDIENTS

CleanGredients helps...

formulators to identify the ingredients for improved products that will meet U.S. EPA DfE requirements and

chemical manufacturers (suppliers) to market ingredients with positive human and environmental health attributes.

CLEANGREDIENTS > HOW IT WORKS





CLEANGREDIENTS > THIRD-PARTY REVIEW

Because key ingredient data are verified by independent third parties, CleanGredients is recognized as a trusted source of chemical product information.



CLEANGREDIENTS > TYPES OF INGREDIENT INFORMATION

General (Technical and Sales)

Physical-Chemical

Human Health

Environmental Fate and Toxicity

Regulatory



CLEANGREDIENTS > DATABASE MODULES

Currently available:

Solvents

Surfactants



CLEANGREDIENTS > DATABASE MODULES

Soon to be released:

Chelating Agents & Sequestrants (non-polymeric)

Fragrances



CLEANGREDIENTS > DATABASE MODULES

CleanGredients will soon accept listings for all ingredient classes using the DfE Master Criteria set (formerly the DfE General Screen).



CLEANGREDIENTS > FUTURE EXPANSION

Expand to other formulated product categories:

- personal care products
- inks, coatings, adhesives
- phthalates and alternative plasticizers

Incorporate screens for additional product recognition or certification programs



CLEANGREDIENTS > FUTURE EXPANSION

The primary focus of CleanGredients is chemical hazards.

Increasingly, we recognize a need to incorporate additional attributes related to green chemistry and life cycle assessment into the database—for example:

- Atom economy
- Embodied energy
- Feedstock



Illustration: Stephanie Fishwick

CLEANGREDIENTS > SPONSORS

Thank you to our 2010 Sponsors





Thank you.

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