

Gröna alternativ och teknologier

– vad kan vi som leverantör göra för att minimera vårt avtryck i miljön?

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Carolin Lysell, M.Sc, Account Manager
Marie Olsson, EHS advisor

Agenda

- Sigma-Aldrich & vår miljöpolicy
 - Vilka är vi och vad gör vi?
- ”Gröna” produkter från Sigma-Aldrich
 - Mindre farliga lösningsmedel
 - Alternativ till etidiumbromid
- Gröna program & service
 - Discovery CPR
 - Returhantering av fat
- Mer information om grön kemi
 - Litteratur
 - Nyheter

Sigma-Aldrich



Vilka är vi?

- Våra kunder jobbar med forskning, utveckling och tillverkning inom universitet, sjukhus, läkemedelsindustri eller annan industri.
- Globalt företag med 38 produktionsfaciliteter
- Ca 80.000 substanser
 - 45% egentillverkat och resten kommer från någon av våra 10.000 leverantörer

Vår miljöpolicy

- Våra faciliteters miljömål är att minska eller minimera risker inom EH&S.
- Ständigt pågående arbete med minska resursanvändning och i möjligaste mån återanvända och återvinna material.
- Aktivt arbeta med att konsolidera transporter.
- Tillsammans med våra kunder utveckla alternativ.

Vad kan du hitta hos Sigma-Aldrich?



Unlock a smarter, greener business.

Environmental Sustainability is an important part of our commitment to Global Citizenship. But our responsibility to the earth doesn't stop with our own actions as a company. We're dedicated to helping customers minimize their environmental impact, without affecting the efficiency or profitability of their business. Click one of the links below to learn how.

Greener Products

Browse greener alternative reaction media, solvents and reagents from Sigma-Aldrich. **> GO**

A button for 'Greener Products'. It features a green hexagonal icon with a white globe and a leaf. The background is light green with a molecular structure graphic on the right.

Programs and Services

Discover customer solutions designed to minimize environmental impact in your lab. **> GO**

A button for 'Programs and Services'. It features a grey hexagonal icon with a white recycling symbol. The background is light grey with a recycling symbol graphic at the bottom.

Learning Center

Check out resources and links to information regarding environmental sustainability. **> GO**

A button for 'Learning Center'. It features a grey hexagonal icon with a white lightbulb. The background is light orange with a photo of two people smiling.

Produktområden



Greener Alternatives and Technologies

Sigma-Aldrich is committed to doing our part to minimize our footprint on the environment. As a life science and high technology company, we recognize your need for high quality chemicals comes first. In cases where it becomes possible to consider alternatives, we have made it easier for you to find greener options through our new "Greener Alternatives and Technologies" product lists.

Learn more about [12 Principles of Green Chemistry](#).

- ▶ [Alternative Energy](#) - (355)
- ▶ [Biodegradable Polymers](#) - (66)
- ▶ [Boronic Acids and Derivatives](#) - (1094)
- ▶ [Catalysis: PdEnCat™](#) - (8)
- ▶ [Catalysis: Phase Transfer Catalysts](#) - (428)
- ▶ [Flow Chemistry](#) - (1)
- ▶ [Greener Alternatives: Reagents](#) - (9)
- ▶ [Greener Alternatives: Solvents](#) - (5)
- ▶ [Ionic Liquids](#) - (268)
- ▶ [Mercury-free](#) - (18)
- ▶ [Novozymes: Quality Environmentally-Friendly Enzymes](#) - (19)
- ▶ [Solvents in Returnable Containers](#) - (139)

Lösningsmedel - Reducing Risk & minimizing the Environmental Footprint

Dietyleter

- H224 Extremt brandfarlig vätska och ånga.
- H302 Skadligt vid förtäring.
- H336 Kan göra att man blir dåsig eller omtöcknad.
- EUH019 Kan bilda explosiva peroxider.
- EUH066 Upprepad kontakt kan ge torr hud eller hudsprickor.



Tetrahydrofuran

- H225 Mycket brandfarlig vätska och ånga.
- H319 Orsakar allvarlig ögonirritation.
- H335 Kan orsaka irritation i luftvägarna.
- EUH019 Kan bilda explosiva peroxider.



Cyclopentyl methyl ether

- Ingen peroxidbildning.
- Mindre avfall & mindre energikrävande
 - H225 Mycket brandfarlig vätska och ånga.
 - H302 Skadligt vid förtäring.
 - H315 Irriterar huden.
 - H319 Orsakar allvarlig ögonirritation.



2-Methyltetrahydrofuran

- Kommer från förnybara källor t ex majs
- Mindre avfall & mindre energikrävande
 - H225 Mycket brandfarlig vätska och ånga.
 - EUH019 Kan bilda explosiva peroxider.



Nancy 520 el SYBR Green ist. f. etidiumbromid

Etidiumbromid

- H302 Skadligt vid förtäring.
- H330 Dödligt vid inandning.
- H341 Misstänks kunna orsaka genetiska defekter.



Nancy-520

- Ej farligt ämne eller blandning enligt regelverket (EG) nr 1272/2008.
- Detta ämne är inte klassificerat som farligt enligt Direktiv 67/548/EEG.

SYBR® Green

- Ej farligt ämne eller blandning enligt regelverket (EG) nr 1272/2008.
- Detta ämne är inte klassificerat som farligt enligt Direktiv 67/548/EEG.

Handling säger mer än ord.



Green actions speak louder than words.

We believe that a company's dedication to the environment should go beyond offering "greener" products. It should also be reflected in its actions. That's why we offer a series of simple, easy-to-implement programs and services designed to minimize your environmental impact, without compromising the quality of your work.



Returnable Solvent Containers

Reusable stainless steel Pure-Pac™ returnable containers are a smart alternative to disposable solvent packaging.

<http://www.sigmaaldrich.com/rc>



Discovery^{CPR}

Order the quantity you need, and avoid costly excess disposal expenses with Discovery^{CPR} custom-quantity ordering.

sigmaaldrich.com/discoverycpr



Catalog Conservation

Sigma-Aldrich product literature is printed on FSC/PEFC-certified recycled paper, and has been harvested through environmentally responsible means.

sigmaaldrich.com/catalog-conservation



eCommerce Procurement Solutions

Streamline workflow and minimize paper waste with a full range of eCommerce procurement and delivery solutions from Sigma-Aldrich.

sigmaaldrich.com/e-commerce

Greener Products

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A green button with a globe icon and the text "Greener Products". Below the icon is the text "Browse greener alternative reaction media, solvents and reagents from Sigma-Aldrich. > GO".

Learning Center

Check out resources and links to information regarding environmental sustainability. > **GO**

An orange button with a lightbulb icon and the text "Learning Center". Below the icon is the text "Check out resources and links to information regarding environmental sustainability. > GO".

Discovery^{CPR} - Waste Minimization and Prevention

Fördelar för forskare

- Levereras färdiga att användas
- Minimerar rester och avfall
- Spara din tid
- Öka produktiviteten

Fördelar för inköpare

- Betalar för det som används



Returnerbara fat

Säkerhet

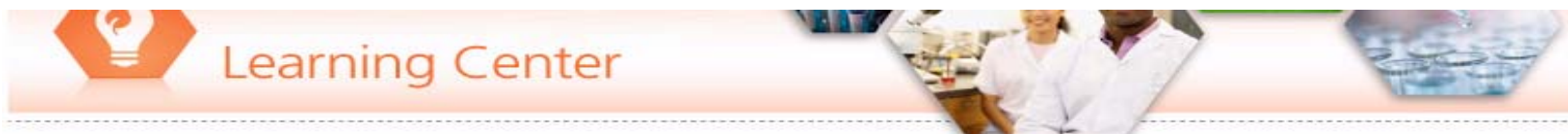
- okrossbara
- Undvika spill
- Minskar brandrisken

Miljö

- Faten är återanvändningsbara
- Undviker tomflaskor



Om du vill läsa mer



Twelve Principles of Green Chemistry

The green chemistry concept applies innovative scientific solutions to solve environmental issues posed in the laboratory. Paul T. Anastas, an organic chemist working in the Office of Pollution Prevention and Toxins at the EPA, and John C. Warner developed the Twelve Principles of Green Chemistry in 1991. These principles can be grouped into "Reducing Risk" and "Minimizing the Environmental Footprint."

:: Literature

Journal Reviews

[Chemical Reviews: Volume 109, Issue 2 \(ACS publications\)](#)

Site registration is required

[Royal Society of Chemistry, Green Chemistry Home Page](#)

Site registration is required

Aldrichimica Acta Review Articles

Zhao, Hua; Malhotra, S. V. [Applications of Ionic Liquids in Organic Synthesis](#). *Aldrichimica Acta* **2002**, 35(4), 75-83.

Headley, A. D.; Ni, B. [Chiral Imidazolium Ionic Liquids: Their Synthesis and Influence on the Outcome of Organic Reactions](#). *Aldrichimica Acta* **2007**, 40(4), 107-117.

Lipshutz, B. H.; Ghorai, S. [Transition -Metal -Catalyzed Cross-Coupling going Green: in Water at Room Temperature](#). *Aldrichimica Acta* **2007**, 40(4), 59-72

:: Books

[Green Chemistry & Engineering](#)

:: Green News

Chemical & Engineering News

Thayer, A. M. [Sustainable Syntheses](#)
Chem. Eng. News, **2009**, 87(23), June 8.

[TOC]

Hogue, C. [Green Chemist For EPA](#)
Chem. Eng. News **2009**, 87(21), May 22.

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Hogue, C. [Anastas is Tapped To Lead EPA Research](#)

Chem. Eng. News **2009**, 87(22), June 1.

[TOC]

Kirchhoff, M. [Rocky Mountain Green](#)

Chem. Eng. News **2008**, 86(36), September 8.

[TOC]

Marasco, C. [The Ivory Tower Goes Green](#)

Chem. Eng. News **2008**, 86(36), September 8.

[TOC]

Ritter, S. K. [Calling All Chemists](#)

Chem. Eng. News **2008**, 86(33), August 18.

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:: Green Chemistry Resources

Greener Products

Browse greener alternative reaction media, solvents and reagents from Sigma-Aldrich. > **GO**

Programs and Services

Discover special customer solutions designed to minimize environmental impact in your lab. > **GO**

Var hittar du informationen?

Vår hemsida:

<http://www.sigmaaldrich.com/chemistry/greener-alternatives.html>

Har du frågor:

Telefon:

- 020-35 05 10 till vårt kundcenter
- 020-35 05 11 för mer tekniska frågor

Email:

- sweorder@sial.com

Frågor

Hmm...

