

GREENWAY™ 2.0

THE WAY WE THINK
THE WAY WE ACT



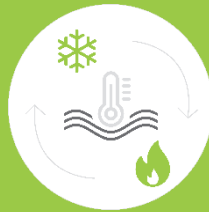
SOLDERING



CLEANING



COATING

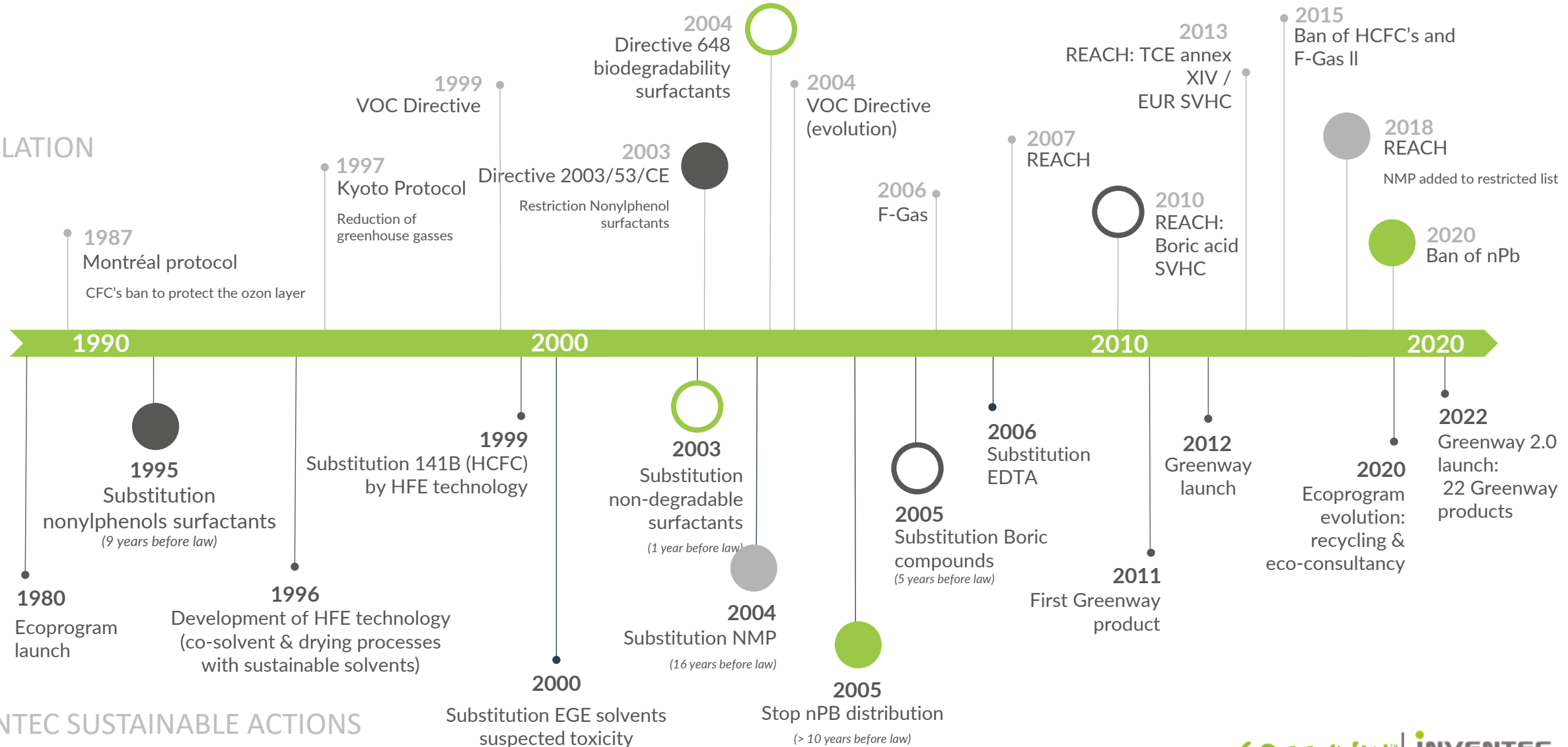


COOLING



GREENWAY™ – THE WAY WE ACT... AHEAD OF LEGISLATION

LEGISLATION



INVENTEC SUSTAINABLE ACTIONS

WHAT IS **GREENWAY™** 2.0?

THE WAY WE THINK
THE WAY WE ACT

GREENWAY™ EVOLUTION

2012 – LAUNCH GREENWAY

To steer new development to more sustainable products, Inventec launched its Greenway™ approach in 2012. New developed products had to significantly improve sustainable impact parameters in order to receive the Greenway label

Décisions durables - 2012

Le Parisien - 2012

Formule Verte – June 2013

2022 – GREENWAY™ 2.0

10 years later, we evaluated the Greenway™ concept and based on the experience gathered, we can now take the next decisive step further.

WHAT IS GREENWAY™ 2.0?

THE WAY WE THINK, THE WAY WE ACT



The objectives stay the same: **limiting our environmental impact** and **helping our customers reducing theirs**.

Greenway™ embodies now everything we do from a sustainable point of view. The way we **develop, manufacture** and **sell** our solutions.

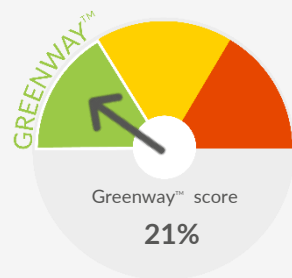
GREENWAY™ PILLARS

THE WAY WE THINK, THE WAY WE ACT

GREENWAY™ SCORE



Evaluate and compare the safety & environmental impact of our products



GREENWAY™ SERVICES



Our services to help our customers to reduce the environmental impact



- **ECOPROGRAM**: service for solvent recycling & eco-consultancy
- Waste management advices

GREENWAY™ PROJECTS



Projects to reduce the environmental impact of our operations and become CO₂ neutral



- Packaging change to use less plastic & waste
- Less paper use
- Less energy use & renewable energy sources.
- ...

GREENWAY™ SCORE

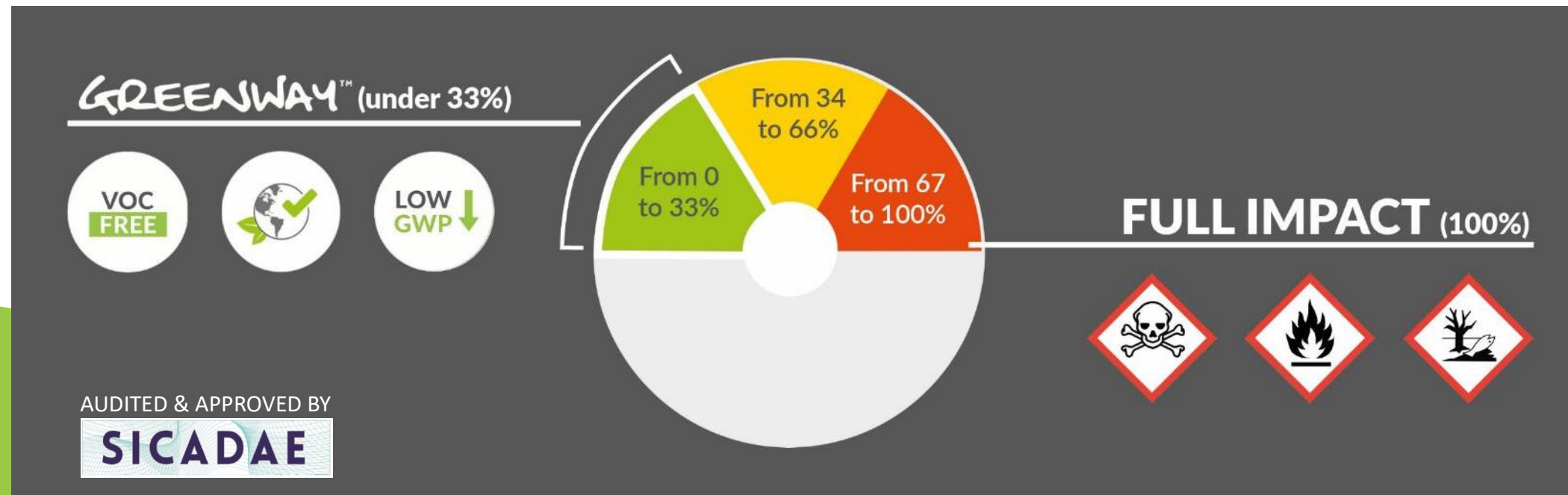


GREENWAY™ SCORE

AN EASY WAY TO COMPARE PRODUCTS

A product with an impact score between 0 and 33% receives the GREENWAY label.

- The GREENWAY SCORE are displayed on our technical datasheets.
- All our products, even with an impact score above 67% are in line with current European regulations. With Greenway we go beyond legislation and we make a judgement on environmental impact based on our many years of experience.



GREENWAY™ SCORE

PRODUCT CHARACTERISTICS

Product characteristics have impact on health & the environment. Defining which features have an impact, is the first step in knowing which ones should be limited.

- Reduce impact for human & nature
 - Toxicity
- Increase safety of the product
 - Flammability
 - Corrosivity
- Reduce consumption of resources
 - Raw materials
 - Energy



GREENWAY™ SCORE

CHOSEN PROCESS

Our products are dedicated for a certain process and each process has different benefits and disadvantages regarding impact on sustainability.

Reduction of impact in use

- Saving water
- Emission reducing & capturing
 - VOC
 - GWP
- Favorizing the circular economy with Inventec **ECOPROGRAM**: collection & recycling of polluted fluorinated solvents



GREENWAY™ SCORE

COST CONSIDERATION

Sustainability can also be accompanied by cost reduction. Depending on the choice of process or product, less resources are needed and hence will drive the cost down.

Consideration of cost reduction:

- Water consuming
- Energy consuming
- Waste management
- Recyclability of the product & packaging
- Consumption of other consumables
- Materials investment & comparison of processes



GREENWAY™ SCORE

SUPPLY CHAIN

Greenway approach also means involving the whole supply chain to reduce product impact.

Reduction of the logistic footprint:

- Decrease transportation distance by local production
- Storage & location
- Packaging optimization



GREENWAY™ SCORE

HOW THE PRODUCT SCORE IS CALCULATED?

Measurable indicators are considered to calculate product impact:

INDICATORS ON HUMAN HEALTH

- Flammability
- Toxicity
- Corrosivity
- Risks of raw materials

INDICATORS ON ENVIRONMENT PROTECTION & RESOURCES MANAGEMENT

- Water consumption
- Energy consumption
- Origin of raw materials (biobased, recycled, ...)
- Waste management
- Emissions reduction
- Recyclability of the product & packaging
- Circular economy possibilities with our **ECOPROGRAM**
- Consumption of other consumables
- Comparison of process

GREENWAY™ SCORE

FROM INDICATORS TO THE GREENWAY SCORE

	PRODUCT NAME	0	Score			
	Indicator axes	Criteria	Indicators	Evaluation	Factors	Score
500	HUMAN HEALTH	Physical hazard	Flammability	Flam cat 1		-125 ☐
				Flam cat 2		-75 ☐
				Flam cat 3		0 ☐
				Flashpoint > 62° C		75 ☐
				No flashpoint		125 ☐
				No flashpoint & EUH 018		250 ☐
		Health hazard	Hazard pictograms	SGH06 toxicity cat 1 or 2 or CMR 1A/B/2		-400 ☐
		Select only the most serious box		SGH06 toxicity cat 3		-125 ☐
				SGH08 lungs		0 ☐
				SGH05 corrosivity cat 1		75 ☐
				SGH07 toxicity cat 4 et corrosivity cat 2		125 ☐
				No pictograms		250 ☐
		pH		[6;8] & solvent		0 ☐
				[3;6] or [8;11]		-50 ☐
				<3 or >11		-120 ☐
500	ENVIRONMENT	Resources	Raw materials % weight			
				from vegetable waste	100	0 ☐
				from vegetable	75	0 ☐
				Renewable (grafting) raw materials	40	0 ☐
				Oil raw materials	0	0 ☐
				Phosphorus raw materials	-20	0 ☐
				Halogenated raw materials	-40	0 ☐
		Air impact	VOC % weight		100	100 ☐
			GWP	0-10		100 ☐
				10-100		60 ☐
				100-500		30 ☐
				500-1000		-100 ☐
		Water & earth imp. Pictograms H4X		H400, H 410 or H420		0 ☐
		Select only the most serious box		H411		40 ☐
				H412 or H413		120 ☐
				No pictograms or H414		200 ☐
300	RESOURCES MANAGEMENT	Water consumption		Points for solvents		50 ☐
		Energy consumption				50 ☐
		Consumption of other consumables		Point for vacuum process		50 ☐
		Product recyclability		ECOPROGRAM compatibility		50 ☐
		Packaging recyclability				50 ☐
		Materials (IEC/ATEX equipment)				-50 ☐
		Waste management		point for aqueous		50 ☐
	Penalty points Others	Penalty point				☐

A TABLE TO CENTRALIZE ALL THE PRODUCT DATAS

For each product, the Greenway scoring table is filled up. Each impact indicator is represented and correspond to points to add or to deduct. The total points received are then converted into an impact percentage.

- Datas reported into the table are in **mainly based on the MSDS** product
- Datas reported are **based on European legislation**. The table & the product score will evolve according to changes in legislation in a continuous development approach.

GREENWAY™ SCORE

FOR EACH PRODUCT RANGE DEDICATED IMPACT INDICATORS

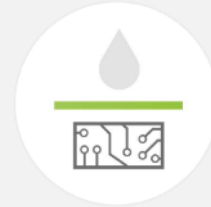
Due to the nature of the product and the application it is used for, the impact indicators are adapted for each product range (cleaning, solder paste, solder flux, coating)



SOLDER
PASTE & FLUXES



CLEANING FLUIDS



COATINGS

GREENWAY™ SCORE

CLEANING

GREENWAY™ SCORE | CLEANING

HOW THE PRODUCT SCORE IS CALCULATED?

Measurable indicators are considered to calculate product impact:

ON HUMAN HEALTH

- Flammability
- Toxicity
- Corrosivity
- Risks of raw materials

ON ENVIRONMENT PROTECTION

- Global Warming Potential (GWP)
- Volatile Organic Compounds (VOC)
- Water & earth impact (H phrases)
- Sustainability of raw materials used

ON RESOURCES MANAGEMENT

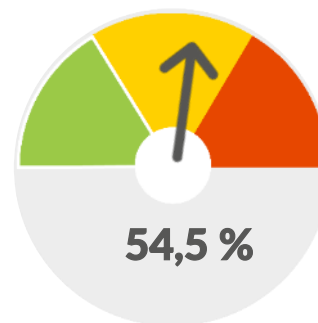
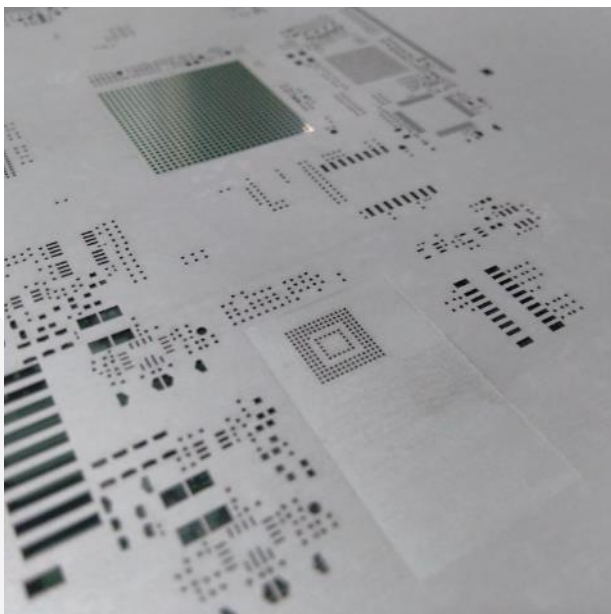
- Water consumption
- Energy consumption
- Waste management
- Recyclability of product & packaging
ECOPROGRAM
- Consumption of other consumables
- Comparison of process
- Requirements on process equipment (IEC/ATEX)



GREENWAY™ SCORE | CLEANING

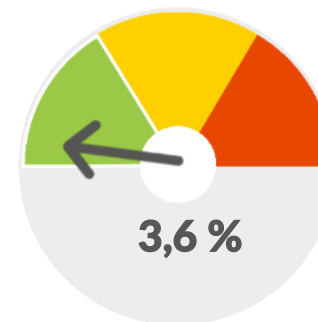
EXAMPLE BY APPLICATION: STENCIL CLEANING

STENCIL CLEANING



IPA

- Needs ATEX/IEC equipment
- VOC
- Toxicity



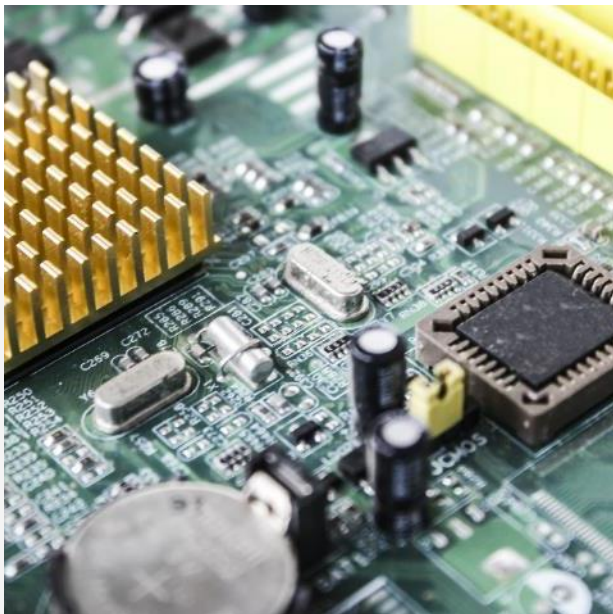
TOPKLEAN™ EL 606

- No flash point
- No VOC
- No hazardous substances
- Contains renewable raw materials

GREENWAY™ SCORE | CLEANING

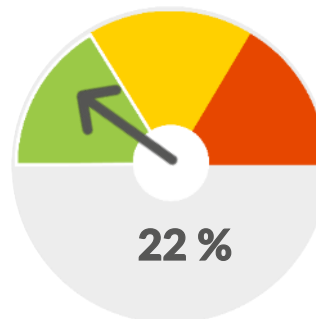
EXAMPLE BY APPLICATION: PCB's CLEANING

PCB's CLEANING



GREENWAY™

CO-SOLVENT

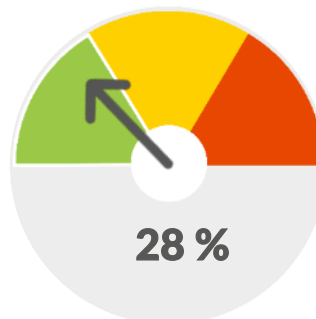


TOPKLEAN EL 20P

- High flash-point
- Non-toxic
- No GWP
- No water consumption

GREENWAY™

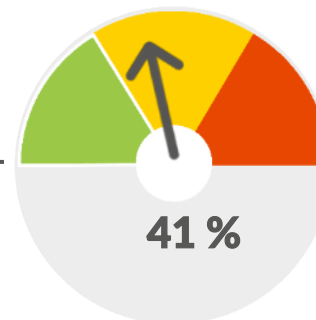
AQUEOUS



PROMOCLEAN DISPER 707

- Non-flammable
- Non-toxic
- Low environmental impact : concentrated product
- Long bath life

VAPOR PHASE



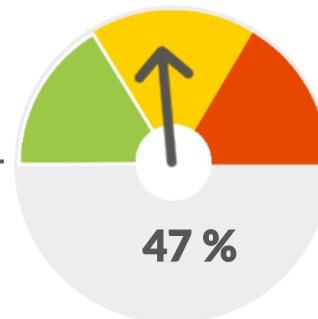
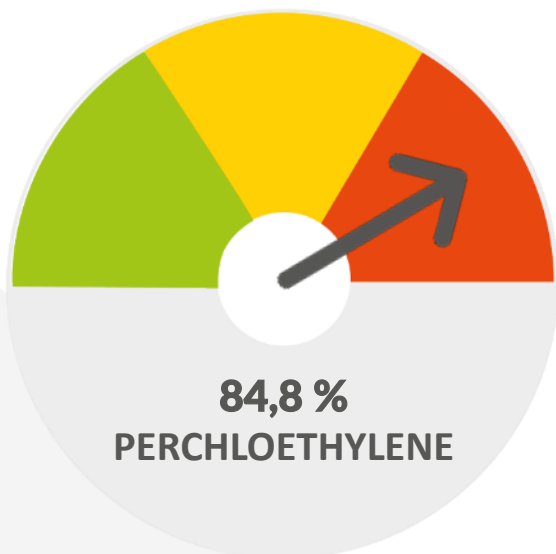
PROMOSOLV 70 ES

- No flashpoint
- No water consumption
- Can be returned for recycling and re-use

GREENWAY™ SCORE | CLEANING

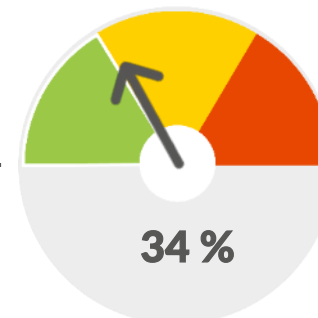
EXAMPLE BY PROCESS: VACUUM

VACUUM PROCESS



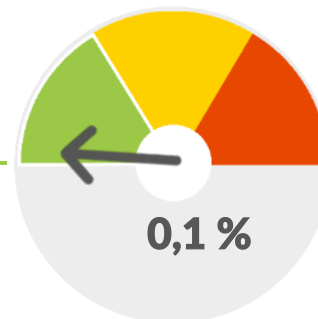
TOPKLEAN MC 1153

- High-flash point
- Low environmental impact: No GWP
- No water consumption



TOPKLEAN MC 20D

- High-flash point
- Low environmental impact: No GWP
- Non-toxic
- No water consumption



TOPKLEAN ORGANIC

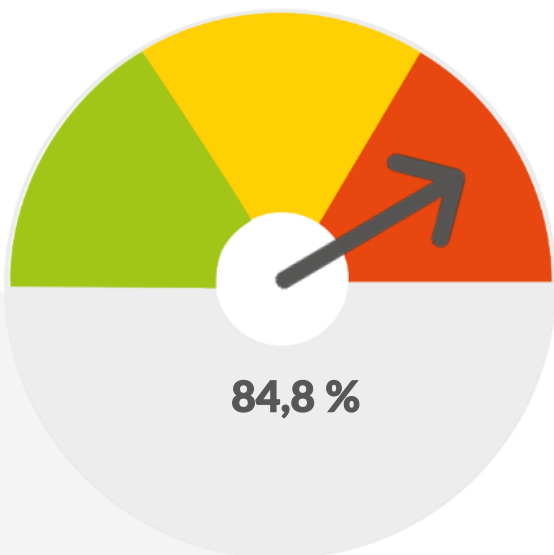
- bio-based solvent
- Vegetal waste materials
- No risk labelling
- No water consumption
- High flash point

GREENWAY™

GREENWAY™ SCORE | CLEANING

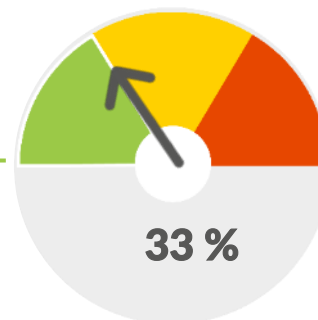
EXAMPLE BY PRODUCT SUBSTITUTION

PERCHLOETHYLENE



GREENWAY™

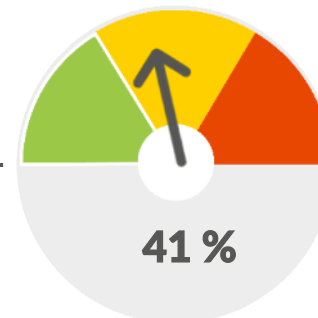
AQUEOUS



PROMOCLEAN TP 1113

- Concentrated product
- Non-toxic & no CMR substances

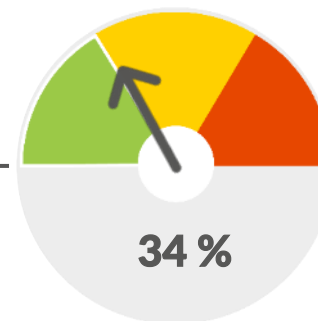
VAPOR PHASE



PROMOSOLV 70

- High-flash point
- Low environmental impact: No GWP
- Non-toxic

VACUUM

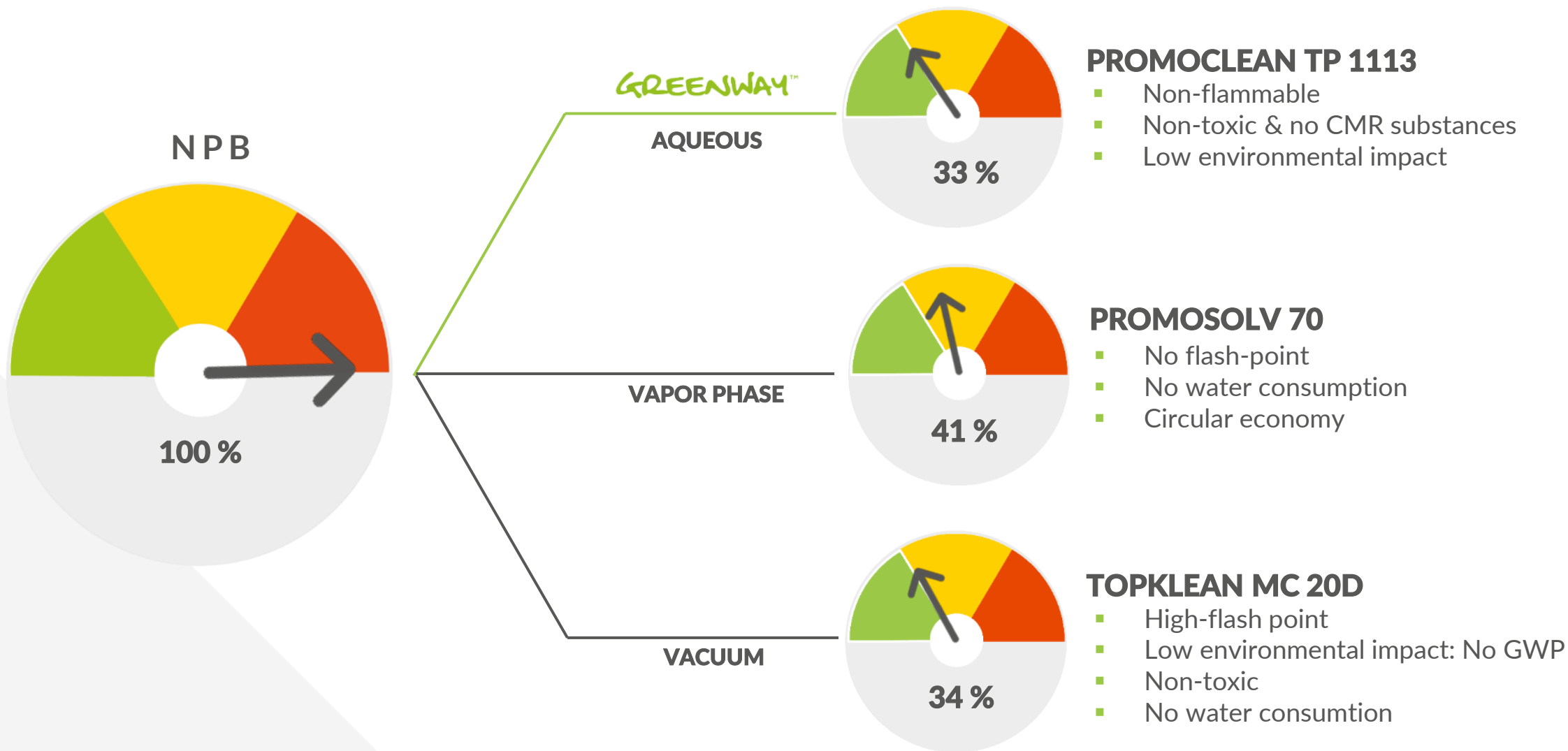


TOPKLEAN MC 20D

- High-flash point
- Low environmental impact: Low GWP & no VOC
- Non-toxic

GREENWAY™ SCORE | CLEANING

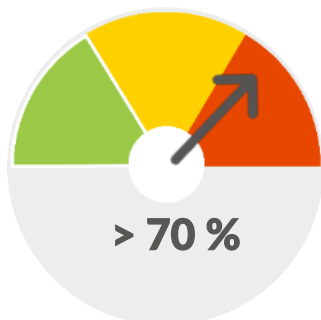
EXAMPLE BY PRODUCT SUBSTITUTION



GREENWAY™ SCORE | CLEANING

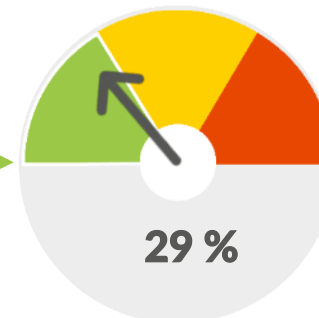
EXAMPLE BY OTHER PRODUCT SUBSTITUTION

BORATE COMPOUNDS



GREENWAY™

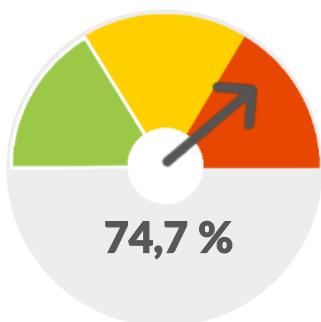
AQUEOUS



PROMOCLEAN DISPER 10

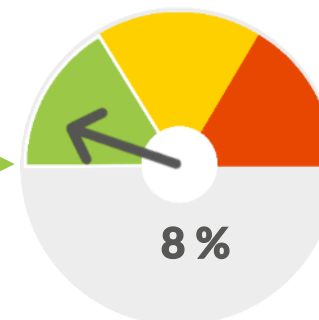
- Non-flammable
- Non-toxic & no CMR substances
- Low environmental impact
- Long bath life

NMP



GREENWAY™

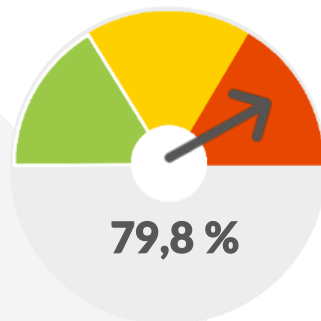
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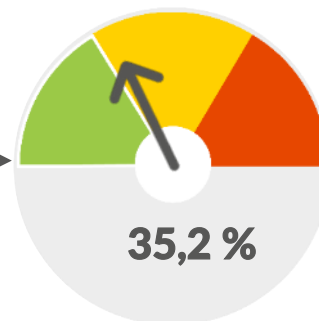
PROMOCLEAN TP 186B

- Non-flammable
- Non-toxic & no CMR substances
- No chemical risk
- Low volatility reduces VOC emission

ACETONE



SOLVENT



QUICKSOLV DEF 90

- No flashpoint
- Non-toxic
- Can be harmful for aquatic life
- Circular economy

GREENWAY™ SCORE | CLEANING

EXAMPLE PROMOCLEAN TP178 vs ACIDIC COMMODITY PRODUCTS

PROMOCLEAN TP 178

DÉTERGENT • NETTOYAGE DE PRÉCISION • DETERGENT • PRECISION CLEANING

FR Contient : Acide glycolique - **DANGER** - Provoque de graves brûlures de la peau et des lésions oculaires. Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage. EN CAS D'INGESTION: rincer la bouche. NE PAS faire vomir. EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux) : enlever immédiatement les vêtements contaminés. Rincer la peau à l'eau/se doucher. Appeler immédiatement un CENTRE ANTIPOISON ou un médecin.

ES Contiene : Ácido glicólico - **PELIGRO** - Provoca quemaduras graves en la piel y lesiones oculares graves. Llevar guantes/prendas/gafas/máscara de protección. EN CASO DE INGESTION: Enjuagarse la boca. NO provocar el vómito. EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente todas las prendas contaminadas. Aclararse la piel con agua/ducharse. Seguir aclarando. Llamar inmediatamente a un CENTRO DE INFORMACION TOXICOLOGICA o a un médico.

EN Contains : Glycolic acid - **DANGER** - Causes severe skin burns and eye damage. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

UN 3265

LIQUIDE ORGANIQUE CORROSIF,
ACIDE, N.S.A.
(Acide glycolique)



H314 - P280
P301+P330+P331
P303+P361+P353
P310

SAFETY DATA SHEET

www.quickfds.com

INVENTEC
PERFORMANCE CHEMICALS
www.inventec.dehon.com

541632.2015

Durée de vie : 18 mois / Craint le gel
Protect from frost / Shelf life : 18 month

CHINA : F/2 Building 6, 185 Yuanke Road, Xinzhuang Ind. Park,
Minhang District 201108 Shanghai
FRANCE : BP 211 20 Rue de Bourgogne 69802 Saint Priest
TEL : +33 472 28 13 00
26, Rue des Coulons, 94360 Bry Sur Marne

SPAIN : Perez Pujol, 4 - 2ª 46002 Valencia
GERMANY : Robert-Bosch-Str.14 D 40668 Meerbusch
SUISSE : Z.I. Petits Champs 15 CH-1400 Yverdon-les-Bains
MALAYSIA : 4, Jalan P / 17 Selaman Industrial Park Bandar Baru Bangi
43650 Selangor

MEXICO : Rio Conchos #1757 Fraccionamiento Industrial B Rosario C.P.
44890 Guadalajara, Jalisco
HUNGARY : Frigogaz Kft - H-2040 Budaörs, Ret. Utca 2,
USA : 500 Main Street, Suite 18 P.O. Box 989 Deep River CT 06417
NEDERLAND : Van Konijnenburgweg 84 NL-4612 PL Bergen op zoom

GREENWAY™ SCORE | CLEANING

EXAMPLE TOPKLEAN ORGANIC vs CHLORINATED COMMODITY PRODUCTS

TOPKLEAN™ ORGANIC

- PRECISION CLEANING VACUUM SOLVENT
- DISOLVENTE PARA INSTALACIONES HERMETICAS DE LIMPIEZA
- SOLVANT POUR MACHINES NETTOYAGE SOUS VIDE

Durée de vie: 18 mois
Shelf life: 18 month

www.quickfds.com
INVENTEC
PERFORMANCE CHEMICALS
www.inventecchemicals.com

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GREENWAY™ SERVICES

SOLVENT REGENERATION



Your used solvent is recycled in specialized equipment to bring it back close to its original specification for re-use in your process.

SOLVENT RECYCLING



Your used solvent is recycled in specialized equipment to use it as a raw material in our dedicated «made from recycled solvents» product range.

ECO CONSULTANCY



We advise & offer technical support on

- maximizing solvent bath-life
- minimize consumption
- installing a recycling installation on our customer's site
- waste treatment

ADVANTAGES

- Reduce the amount of waste
- Avoid cost of destruction
- Buy recycled solvent at lower cost
- Improve your company's environmental image.

COMPATIBLE PRODUCTS

- Promosolv™ 70, 70ES, 90C, RN2B, 41M, DA1, DA2, DE1, DE2, DR1, DR2, DR3, DS1, DS2, DEF 90,
- All our products made from recycled solvents (indicated by a T at the end of the product name),
- 3M™ Novec™ 7100, 8200, 71 IPA, 71 DE, 72 DE, 73 DE, 71 DA, 72 DA.

4

► WE COMMERCIALIZE

the products resulting from the recycling under the brand Promosolv™ T

► WE SEND YOU BACK

your regenerated solvent for re-use in your process.

We guarantee that you will receive back the product you have sent to us. It is not mixed with solvents received from other customers.



ATTENTION POINT

Transport of waste and recycling is in some regions strictly regulated. For this reason, our ECOPROGRAM offer can vary from one location to another depending on local regulations



GREENWAY™ PROJECTS

GREENWAY™ PROJECTS

REDUCING THE IMPACT OF OUR OPERATIONS

RUNNING PROJECTS

- Garden development on our production facilities
- Better recycable solder paste jars
- Better recycable drums
- Paperless order process (Switzerland – pilot plant)
- New production & R&D building Inventec France (more sustainable building)
- New more advanced recycling unit in France

FUTURE PROJECT

- Solar panels on production and storage roofs
- Rain water collection
- ...

TARGETS

- CO₂ Net Zero operations
- Reduction of waste
- Reduction of resources



THANK YOU
FOR YOUR ATTENTION

www.inventec.dehon.com

