

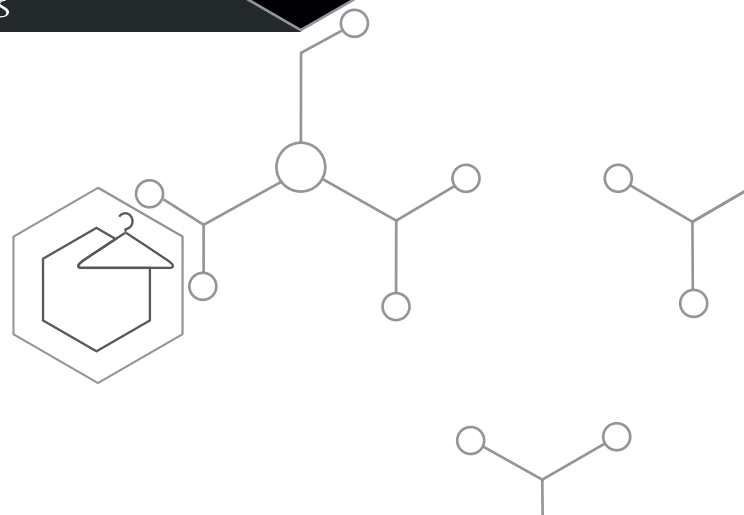


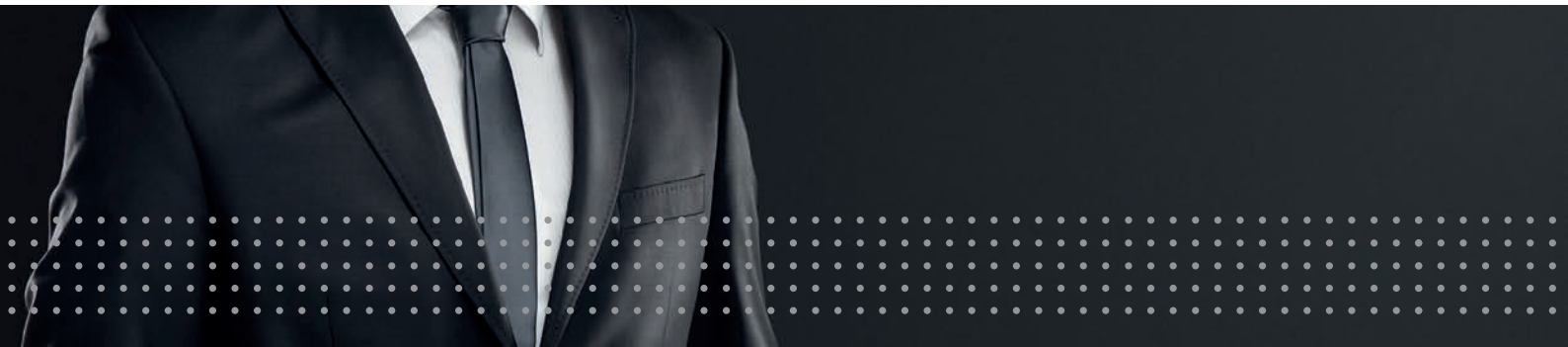
Richard Geiss GmbH
Sustainable Solvent Recovery



Richard Geiss GmbH

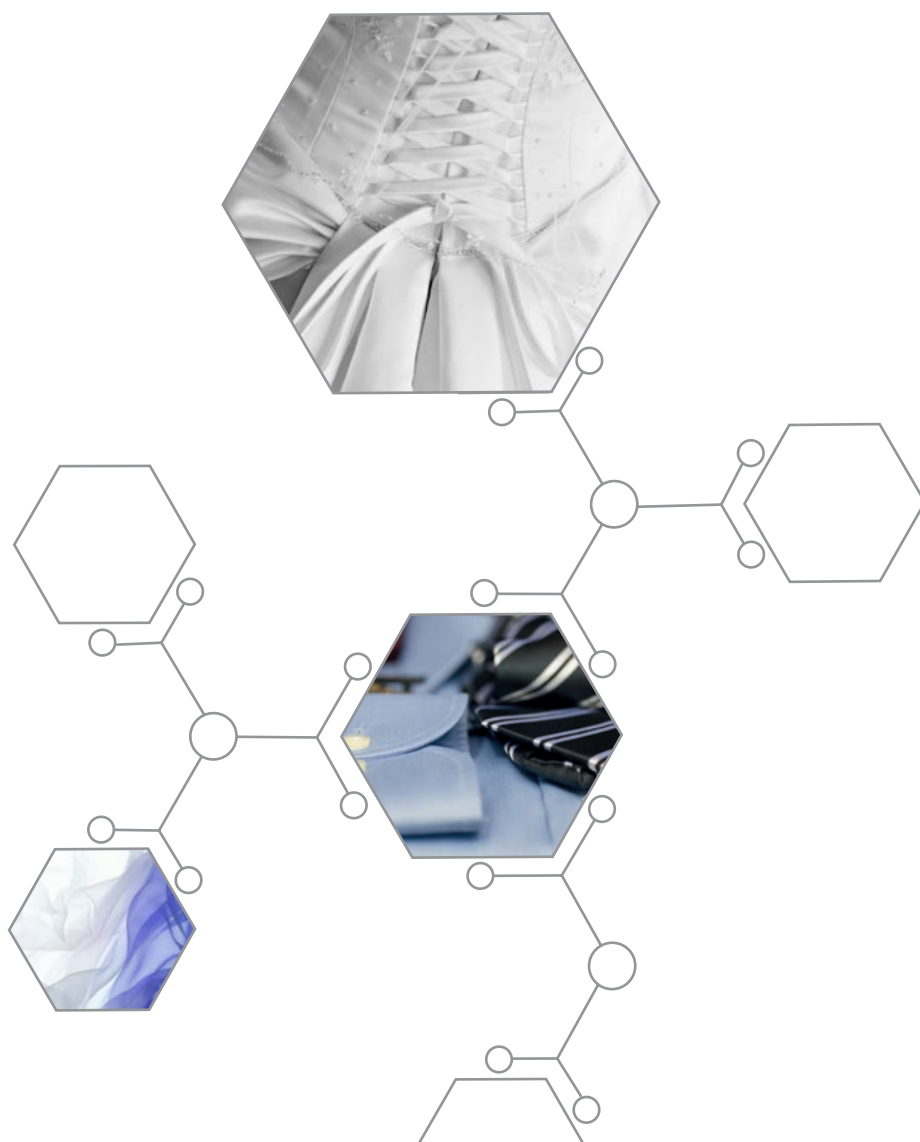
Solvents for textile cleaning





“Safety and responsibility! That is what we want to offer our customers. We want to ensure our customers the necessary safety when using solvents and responsibly support them!”

*Nathalie Geiss-Zinner
Partner*



PREAMBLE Textile cleaning, and particularly their use of solvents, has been at the heart of Richard Geiss GmbH ever since its beginnings. It was precisely this area which was in favour of recycling used solvents.

Through close, constructive dialogue with many dry cleaning shops, the association and guilds, the pervasive regulation regarding the safe and proper use of solvents, which was introduced at the end of the 1980s, could be implemented.

Meanwhile, Richard Geiss GmbH was being managed and expanded by the third generation of the founding Geiss family. New keywords such as sustainability and CO₂ footprint are commonly used when using and assessing products. Keywords, which are not simply words, but rather are part of daily activity and regulations.

Our promise to you is that we will continue to be a proactive, reliable and affordable partner for our customers in future.

Peter Hess
Sales Manager





Richard Geiss GmbH

Sustainability & responsibility

Our main priority is protecting the environment through solvent recovery. Partners can rely on our responsible approach, helped by a sophisticated QS system, perfect logistics and a highly motivated team of competent employees who are specially trained in the area of solvents. We never compromise on quality and safety!





SUSTAINABILITY AND RESPONSIBILITY

Solvents have to be disposed of as hazardous waste after they have been used. They are mostly destroyed using waste disposal (e.g. by incineration), which means raw materials are lost.

The company goal at Richard Geiss GmbH is to recycle these resources and to return highly purified distillates back to their original market using professional processing techniques. The solvent is fed into a continuous cycle, so it remains on the market.

By saving finite resources, using a Geiss distillate makes an important contribution to the protection of the environment and the reduction in energy costs while at the same time decreasing the occurrence of problem waste. In this way, the family company contributes significantly to the decrease in CO₂ emissions.

This is sustainability which really deserves the name and is important for our environment and hugely valuable economically and socially, and is particularly significant for future generations.



1. Used products take-over

Collecting used products in line with return obligations under consideration of all regulations.

2. Laboratory

Entry analytics of used products in our in-house laboratory. Carrying out a comprehensive range of laboratory services.

3. Pre-distillation

Separation of the solvent elements as a first step and separation of residue.

4. Pure distillation of high-quality fresh products

New distillation of the solvent elements reclaimed from the pre-distillation, to produce fresh quality products.

5. Laboratory

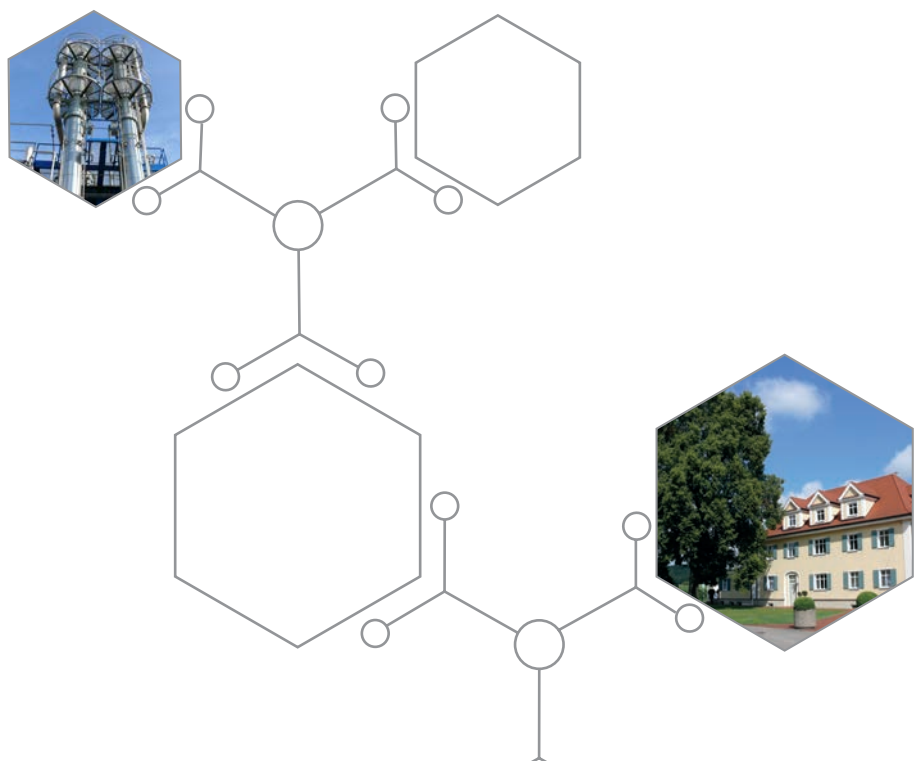
Quality assurance checks of the fresh products in the laboratory.

6. Filling and delivering the fresh products

Filling the fresh products produced into safety containers and delivering.

7. Textile cleaning

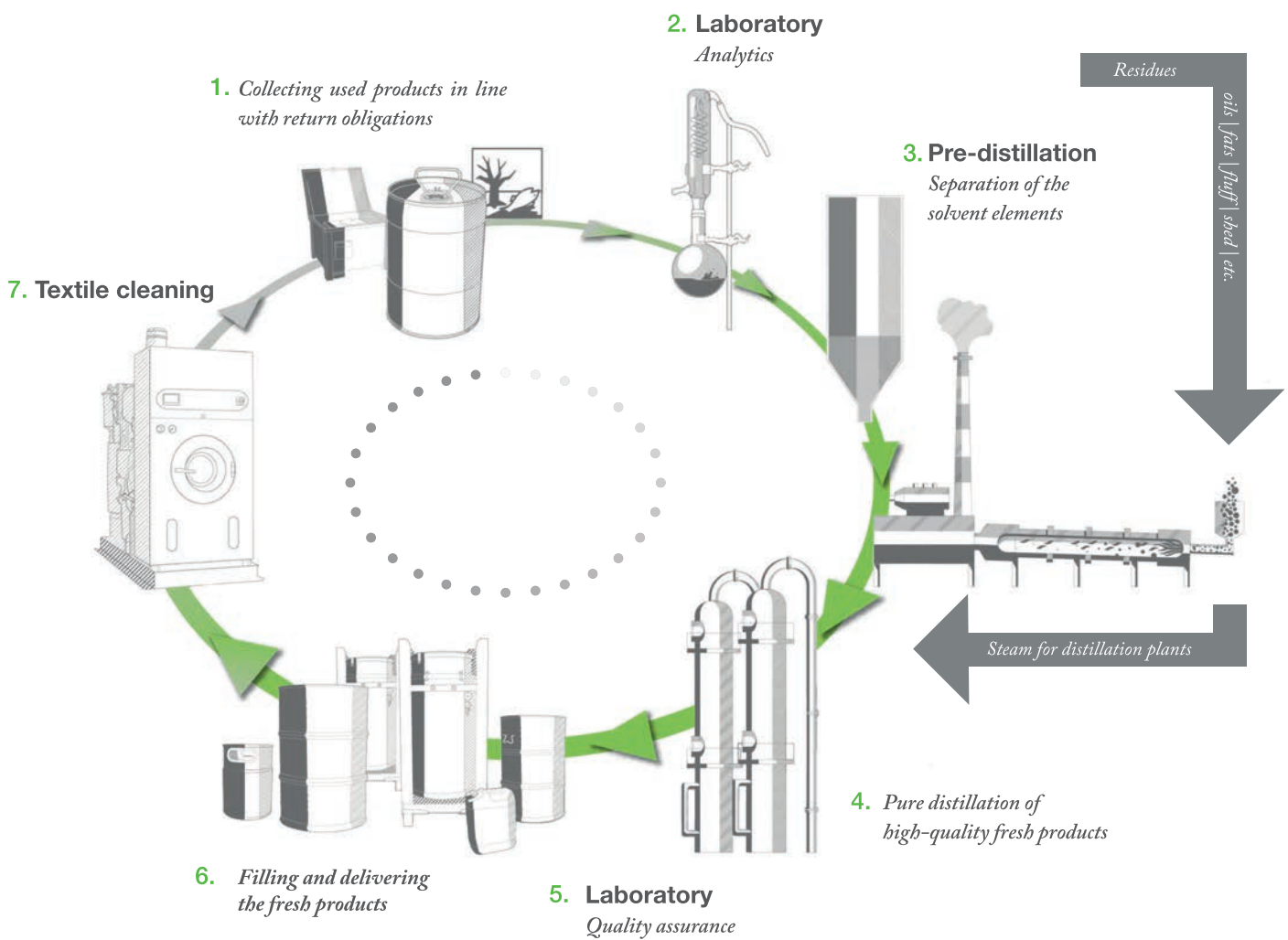
Use of the fresh products in textile cleaning, solvent care using Geiss products.





Circulatory system

Solvents for textile cleaning



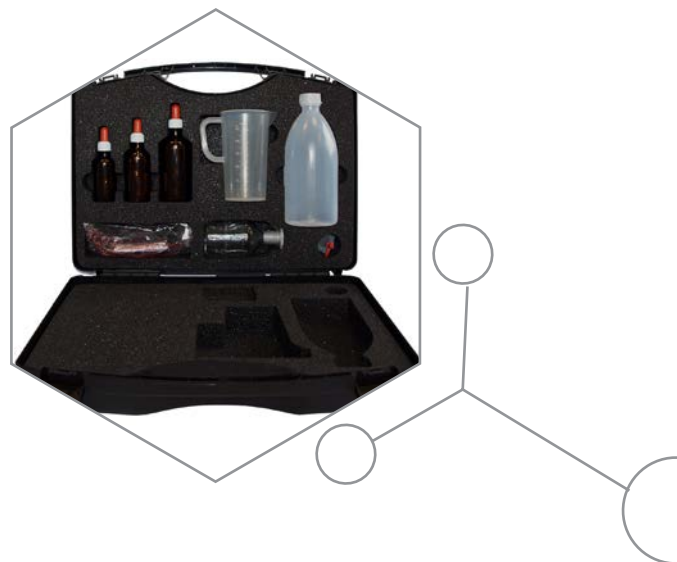
Textile cleaning

Solvents & services

Textile cleaning using solvents has proven valuable for many decades as it works completely safely and reliably, and is very economically efficient.

The product range at Richard Geiss GmbH is diverse and tailored towards customer requirements. Whether perchloroethylene, hydrocarbons or silicone solvents, the family business offers the perfect products for its customers. Suitable safety containers and connection systems ensure safe transportation of solvents and emission-free filling and emptying of dry-cleaning machines. Specially developed for textile cleaning, the GEISS PER TEST kit allows customers to independently check perchlorethylene solvents on site. The PROSTAB 8, providing the necessary stabilisation, completes the product range.

Safety, particularly with regards to solvents, is of utmost importance at Richard Geiss GmbH. Solvent users are instructed and trained in the areas of workplace and environmental safety, bath maintenance, stabilisation and care of solvents.





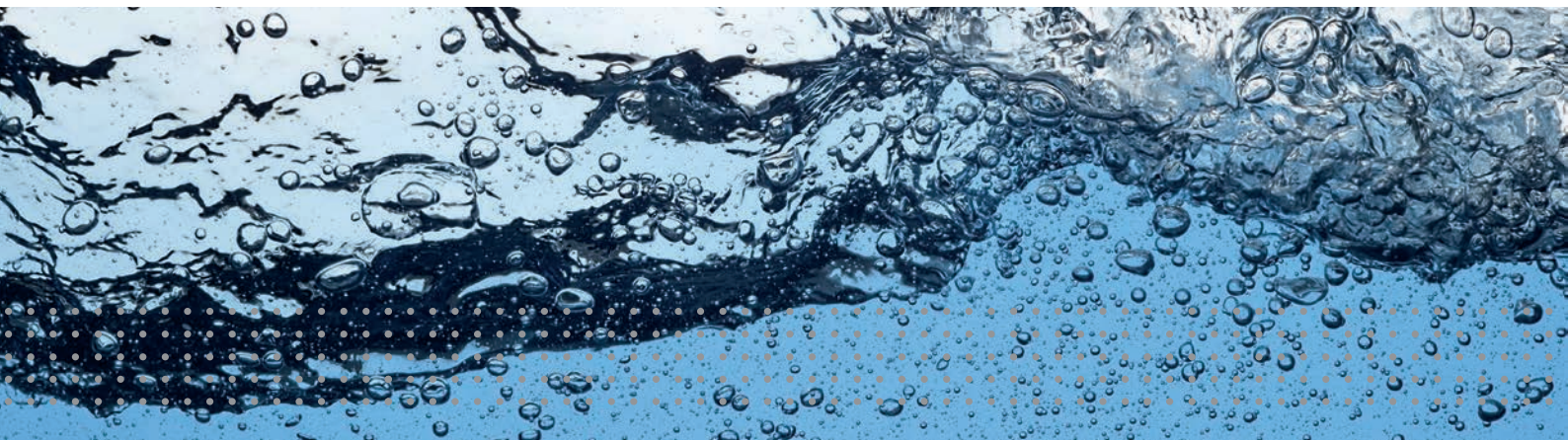
The solvents

Perchloroethylene, hydrocarbons, silicone solvents

PERCHLOROETHYLENE:

- Chlorinated hydrocarbons
- Chemical properties:
 - No flash point
 - Low boiling point of 121 °C
 - High vapour density
 - High kauri-butanol value (dissolving power)
 - Non-polar
- Essential in many areas of use, particularly when undertaking complex cleaning tasks.
- Chlorinated hydrocarbons are mainly used in the following areas:
 - Textile cleaning, leather cleaning, fur degreasing
 - Industrial parts cleaning & degreasing
 - Chemical / pharmaceuticals industry
 - Laboratory area, e.g. asphalt laboratories
- Due to its virtually endless distillation suitability, the closed circuit can be continuously reproduced.





HYDROCARBON SOLUTION / ISOFIN / HYDROCARBONS:

- Hydrocarbon mixture, which is reclaimed from petro-chemical products by means of catalytic synthesis.
- Mix of saturated, linear and/or branched aliphatic hydrocarbons in the range from C9 to C13.
- Chemical properties:
 - Flash point in the range -10 to 65 °C
 - Practically aromatic substance-free compounds, fully saturated and quasi odourless
 - Non-polar solvent
- Use in textile cleaning and in industrial parts cleaning.
- Solubility of polar substances in hydrocarbon solvents extremely low.
- Hydrocarbon solvents are generally not stabilised against acids.

SILICONE SOLVENTS

- Silicone oil solvents; silicone is the basis
- Chemical properties:
 - High flash point (77 °C)
 - Boiling point 210 °C – no boiling range
 - Non-polar
 - Odourless
 - Relatively low kauri-butanol value
- Not classified as a hazardous substance
- Silicone oils are used in many areas, including cosmetic use.
- Silicone oils are cleaned in systems by distillation or through filter systems.



Geiss Products

Solvents for textile cleaning

GEISS PER TEX

Perchloroethylene stabilised for textile cleaning use

GEISS ISOFIN TEX

Hydrocarbon solvent flash point >58.5 °C

GEISS ISOFIN RG 63

Hydrocarbon solvent – similar to GEISS ISOFIN TEX but with a higher boiling range and not classified as a hazardous substance

GEISS SIL TEX

Silicone solvents for textile cleaning use

Test kit & stabilisers

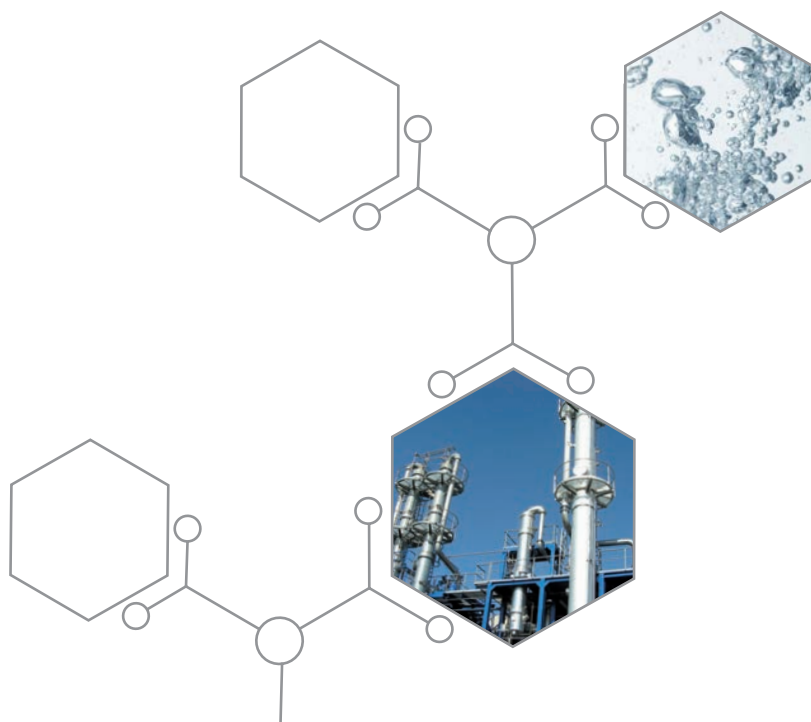
TEST KIT GEISS PER TEST

Determines the alkalinity of GEISS PER TEX

STABILISER PROSTAB 8

Increases the alkalinity of GEISS PER TEX

Filter cartridges





Laboratory

Testing, Monitoring, Development

OUR RANGE OF SERVICES

- The range of our service analyses includes the determination of numerous parameters such as:

- Equal boiling proportions
- Water content
- Density
- Acidity
- Alkalinity
- Calorific value
- GC analytics
- pH value
- Acid acceptance value
- Chloride content
- Evaporation residue
- Flash point

- Conduct of oil compatibility tests (boiling tests)
- Contact water examination

THE BENEFITS FOR YOU

- Highly qualified specialist staff
- Modern, company-owned laboratory equipment
- Fast results





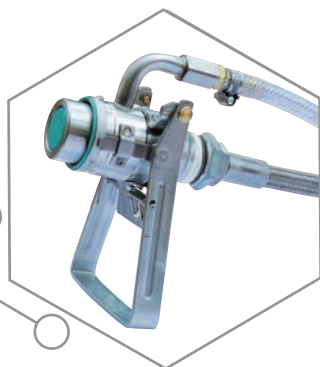
Fitting systems

Safe handling of solvents

Solvents are water-hazardous and partly poisonous substances; therefore they are not easily degradable in soil and water. As a result of the potential hazards, there are regulations governing the storage, filling and handling of solvents. These regulations were introduced at Richard Geiss GmbH at the start of the 1990s, which has developed into a company that safely handles solvents by using double-walled safety containers developed for storage and transportation. Using the corresponding fitting systems, solvents can be used in an emission-free manner by means of a non-drip quick coupling and exhaust system. This also applies to fresh products delivered as well as used products to be disposed.

Details and alternatives can be found in our flyer "Fitting systems and parts catalogue".

We would be happy to advise you in person!





Safe for the environment

Disposal, storage & handling of solvents

The legislator places strict requirements on both the storage and disposal of solvents. Environmental protection and safe handling of solvents are important; therefore the sophisticated safety systems at Richard Geiss GmbH even outperform this.

Certificate

Certified according to:
QM 9001
UM 14001
OHSAS 18001
EfB (Waste management facility)

SQAS

Authorised to produce spirits and energy products with own warehouse

Approval for self-denaturation

THE SAFETY SYSTEM

Multiple exhaust air treatment systems (exhaust air specially adapted to the type of solvent, chlorinated or non-chlorinated)

Floor protection using collection trays according to the Fresco 1 system (specialist quinting)

Secure area with video surveillance and perimeter fences

24-hour centrally manned controlled room

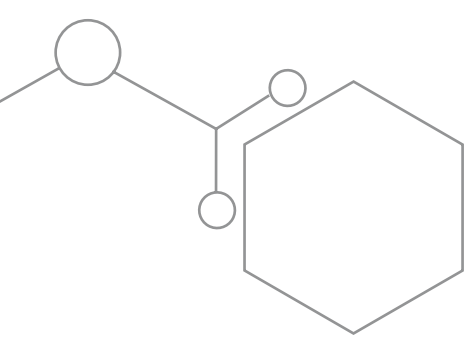
Own fire prevention control centre with 7,000 litres of foam capacity and up to 250 m³/h extinguishing water

Fire extinguisher with 2,000 litres of foam and foam water cannon

Additional cooling of tank storage parts through irrigation



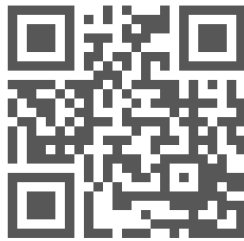
RESPONSIBILITY IN THE BEST HANDS



From left to right:

Bastian Geiss (Managing Partner), Nathalie Geiss-Zinner (Partner), Veit Jähne (Technical Director), Alexander Just (Sales Director), Peer Linse (Commercial Director), Waseem Rana (Manager Scheduling), Dr. Thomas Brendgen (Laboratory Manager), Peter Hess (Sales Manager)





... only if the chemistry is right



Richard Geiss GmbH
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Richard Geiss GmbH
Lüßhof 100 | D-89362 Offingen/Donau
Tel +49 8224-807-0 | Fax +49 8224-807-37
info@geiss-gmbh.de | www.geiss-gmbh.de