

# Prepared for any danger!

Logistics for hazardous materials are extremely complex. Fortunately, many CargoLine partners are experts in the field and constantly expanding their services. They support their customers with a wide range of solutions that help them meet even the most demanding requirements for the transportation and storage of hazardous materials.

It's morning and everything seems right with the world as you get yourself ready in the bathroom. Deodorant, perfume and hair spray are waiting peacefully on the shelf awaiting their turn to be used. Hazardous materials seem a world away. No sign of ammunition, radioactive waste or fireworks. And yet many everyday household items fall into this category for providers of logistics services. These include not only the above-mentioned toiletries but also batteries, anti-freeze and lighters – to name just a few examples.

“Individually, products like these pose hardly any risk. However, when you have to transport and store them in large quantities, they require special handling in accordance with very specific regulations,” explains Sven Köcke, spokesperson for the Finsterwalder Group, which operates a state-of-the-art warehouse for hazardous materials. The CargoLiner is one of many partners that is more than capable of meeting the high standards relating to dangerous goods. In this complex field, CargoLine can provide or create an extremely diverse range of solutions. The following article contains just a few examples – you can find further information and suitable CargoLine partners at [www.cargoline.de/gefahrgut](http://www.cargoline.de/gefahrgut).

## Chemical industry provides 40 percent of warehouse stock

For now, we'll stay with Finsterwalder, which selected its location in Halle an der Saale for good reason. At the time of the German Democratic Republic, it was home to VEB Chemiehandel. The state-owned enterprise worked for the chemical collectives in surrounding towns, e.g. in Bitterfeld and Leuna where many new chemical companies have settled since the fall of the Iron Curtain. Today, the Bitterfeld-Wolfen Chemical Park is one of the largest in Europe so it is hardly surprising that up to 40 percent of Finsterwalder's stock is stored on behalf of customers in the chemical industry. The freight forwarder stores and transports varnishes and paints, adhesives and spray cans for a discounter as well as sulphides and phosphates for a manufacturer of plant protection products.

In 2014 and 2018, the company built the most advanced hazardous materials warehouse in Central Germany in two phases. Finsterwalder invested a great deal of time and energy in the approval process for the new building which complies with the additional requirements of the German Hazardous Incident Ordinance (Störfall-



Who thinks of hazardous materials during one's daily beauty regime?

verordnung). The company had to provide full planning information to local residents and businesses, answer and document questions, and take appropriate measures when legitimate concerns were raised. This public procedure lasted over a year and had to be completed before construction could begin.


### Largest single investment

“The project cost a total of 35 million euros – the largest single investment in our company’s history,” says Köcke. But it was worth the effort. The warehouse covers an area of almost 11,000 square metres and can be used to store toxic, oxidising and explosive goods, substances and mixtures as well as

hydrogen fluoride. “This enables us to meet very specific regional customer requirements.” The development also takes future opportunities into account. Areas still being used for conventional storage can also be used for water-polluting substances on request.

Of course, a warehouse that stores hazardous materials must also make provisions for improbable but possible accidents. Preparations include regular exercises for emergency services and rescue teams in a range of different scenarios. In consultation with Finsterwalder, local hospitals also keep stocks of special medicines available for use in the event of a serious accident.

Most hazardous materials, however, are familiar products we can find in our own kitchens or bathrooms. Finsterwalder’s customers not only appreciate the professional storage in a state-of-the-art warehouse and the special care it takes in handling their goods, but also the additional logistics services the company provides. For example, on a second level, there are areas for order picking shipments.

Like many other CargoLine partners, the freight forwarder is also a full-service provider of transport and storage solutions for hazardous materials. This includes the transfer of goods from production facilities, a shuttle service to and from the warehouse, loading and unloading of rail transports, 

Independent of the type and the packaging of hazardous materials, they are safely and reliably stored and transported by CargoLine partners such as Hofmann Internationale Spedition (small pictures) and Fritz Group (big picture).



customer-specific warehouse management, preparation of accompanying documents, and a variety of material handling systems, such as drum grippers.

**Customised solutions**

“Liquids, solids, acids, bases and solvents – it takes years of experience, profound know-how, and high-quality technical equipment to offer professional transportation, logistics, and packaging of hazardous materials,” explains Patrick Leue. At Koch International in Osnabrück, he is responsible for implementing customer requirements in the area of hazardous materials. These include conducting reviews of operating procedures with recommendations for the correct handling of hazardous materials during storage and transport, project support and assistance in working with regulatory authorities, etc.

With an area of 13,000 square metres, the CargoLiner operates a warehouse for raw materials and finished goods, temperature-controlled storage, a special pyrotechnics warehouse, order picking and packaging



of dangerous goods, returns management, and customer-specific label printing. Like all CargoLine partners, Koch has modern burglar alarm and central fire alarm systems as well as permanent video surveillance.

**Meeting customer requirements**

The Fritz Group in Heilbronn also boasts comprehensive expertise and facilities. On 18,900 square metres, divided into twelve fire sections, it stores paints and coatings, motor oils, additives, bleach and gases on behalf of its customers – sometimes in temperature-controlled storage areas. It also performs haz-

ardous goods checks for shipments and offers labelling and packaging as value-added services. In addition, there is the possibility of an inventory of hazardous substances in real time via an online portal.

As well as a CO<sub>2</sub> fire extinguishing system, which purges all the oxygen from the space and thus starves the fire, the hazardous materials hall also has a plunge pool that can be used to submerge an additives fire and extinguish it quickly, if the need arises.



## 20 years of expertise with hazardous materials

Every CargoLiner has its own special systems for handling a wide range of substances. For example, Wackler in Wilsdruff (near Dresden) is incorporating 20 years of expertise with hazardous materials into the design of a new warehouse. Its customers are primarily seeking suitable solutions for highly flammable liquids and large quantities of spray cans as well as for toxic and corrosive substances. “We will be able to meet these needs very soon with the construction of our new warehouse for hazardous materials. With an additional 17,000 square metres, we will more than double our available storage capacity for these substances,” explains Kathleen Dietrich, Head of Logistics at Wackler.

Customers such as BASF and Wacker Chemie have already shown their interest in the new warehouse and the additional opportunities it offers. Wackler is storing lubricants and silicone oils for the leather processing industry and water-polluting substances used in cleaning agents for these and other companies. The new warehouse is scheduled to open in 2020. “Our connection with the reliable CargoLine network is also an important

### CargoLine has the answers

More than 300 million tonnes of hazardous materials are transported in Germany every year. Around 140 million tonnes are shipped by truck – and the trend is rising. Flammable and liquid substances account for about two-thirds of this total. However, only 16 percent of providers surveyed by the German Haulage and Logistics Association (DSL) offer services for hazardous materials. And only six percent see this as their main focus.

For CargoLine and many of its partner companies, however, hazardous materials are a growth area. This is evidenced not only by their investments in warehouse facilities, but also by the fact that, in addition to the CargoLine partner’s own full and partial loads, one in ten consignments in the general cargo network contains hazardous materials. No wonder – since the cooperation can offer shippers full-service solutions from warehousing to transport and return of empties.

advantage in negotiations with existing and new customers,” says Dietrich. “Cross-border local deliveries and our contacts with the responsible authorities, which we have developed over many years, are also persuasive arguments.”


Speaking of authorities, another reason for the construction of the new hazardous materials warehouse in Wilsdruff is that lawmakers are extending the regulations to an ever growing number of substances or classifying them more strictly. “For example, hazard class 3 has been extended by redefining the permissible flash point for highly flammable liquids. This increases the number of goods in this hazard class,” explains Kathleen Dietrich.

## Trained and qualified

Legal changes of this kind must be communicated promptly to drivers and warehouse staff at all the partner companies. This is why companies hold regular training courses and briefings with in-house and external experts in hazardous materials for all employees who work with these goods. The central CargoLine Academy also offers a variety of training courses – with topics ranging from basic courses on hazardous materials to load securing and the new regulations introduced in 2019.

They show drivers and warehouse staff how to handle the materials correctly and ensure that all the necessary accompanying documents, labels, and vehicle equipment comply with the strict regulations. It should also be noted that only drivers with an ADR certificate, i.e. a driver’s licence for hazardous materials, are allowed to transport these goods. Wackler, for example, has 130 drivers with an ADR certificate while Finsterwalder has 136.

## Optimising facilities

In addition to training, CargoLine partners also appreciate the standardised and automated processes within the network. Ultimately, they benefit the customer. “All essential data regarding hazardous materials are forwarded digitally in advance and can be traced at any time,” explains Stefan Seemann, assistant to the management board at Hofmann Internationale Spedition in Biebesheim am Rhein. “They are checked and, if necessary, completed both when the goods are collected from the customer and when they are handed over at the hub or to a partner company.” 



Thanks to the orange signs that classify the shipment (here sodium carbonate peroxohydrate with UN no. 3378 and hazard no. 50) and whose use is mandatory on lorries transporting hazardous materials, paramedics and firefighters know exactly how to handle the shipment in case of an emergency.

While Hofmann knows it is in safe hands within the alliance, the company's experiences with other providers have been mixed. For example, until a year ago, the freight forwarder had been storing smaller quantities of hazardous materials in large, external warehouses due to its own lack of capacity. "We had to register the shipments days in advance and were always at the back of the queue as a C-list customer," says Seemann. "But at least it allowed us to offer our customers an acceptable interim solution."

Hofmann, though, wanted to find a better way to meet its customers' needs and optimise its own facilities – so it decided to buy an existing hazardous materials warehouse. Stefan Seemann, who was responsible for the acquisition, explains the advantages of purchasing an existing property. "Buy-

ing the warehouse meant we were able to continue using the existing permits. And we have gradually been adding more," he says. "This significantly reduced the otherwise complex approval procedures required for a new building."

The 2,400 square metres hazardous materials hall that Hofmann has acquired and modernised may be smaller than others but it has almost quintupled the company's existing space for these goods. Additional storage facilities have been created in a newly completed new logistics hall: there, 7,500 pallet spaces – of which 1,000 with cooling to 2 to 8 °C – offer room for environmentally hazardous and corrosive substances according to the German Water Resources Act (WHG). "So we are well prepared to meet the needs of our existing customers and have the capacity

we need for future enquiries," says Seemann confidently. And because its customers also want Hofmann to fill, unload and transport liquid hazardous materials on their behalf, the logistics specialist from Biebesheim operates its own fleet of vehicles especially for chemical transports of this kind.

### State-of-the-art software and warehouse technology

Schäfflein's hazardous materials warehouse in Röthlein set a new benchmark in 2016. The CargoLiner was the first in its region to build a new warehouse which – like those of Finsterwalder, Fritz, Hofmann and Koch – is compliant with the "extended obligations under the Hazardous Incident Ordinance". Furthermore, the new warehouse has a special, high security area for toxic substances.

As warehouses become larger and more complex, intelligent IT systems become ever more important. For example, the warehouse management software used by Schäfflein and other CargoLiners permits batch management and tracking as well as ensuring compliance with the prohibition on mixed storage of hazardous materials. The warehouse software stores the hazard classes for every article so it can automatically find the right storage location. If a forklift driver selects the wrong space, the scanner will alert him to the problem. The driver can only continue working once he has stored and scanned the goods in the correct area.

Moreover, Schäfflein provides the fire brigade with hardware and software that send real-time information about all the hazardous substances stored in the warehouse. In the event of an incident, the emergency services can then decide exactly which equipment, extinguishing agents, and protective clothing they require.

### Shared standards – individual approaches

Finsterwalder, Fritz, Hofmann, Koch, Schäfflein, Wackler and other members of CargoLine are proof of the advantages that the alliance offers through its uniform standards and training in the sensitive handling of hazardous materials. At the same time, each partner has the freedom to position itself individually within the network and offer a wide range of different solutions – as diverse as their customers' requirements and hazard classes themselves. So it's good news – and not just for deodorants, perfumes, and hairsprays. ◇

#### Tips for shippers

- ▶ Label the outermost layer of packaging clearly and correctly
- ▶ Provide safety data sheets
- ▶ Do not cover hazardous materials stickers with other labels
- ▶ Register the shipment correctly
- ▶ Do not hand over damaged packages
- ▶ Always close screw caps correctly
- ▶ Observe the ban on mixed loading of hazardous materials
- ▶ Adapt container packaging to the transport conditions
- ▶ Establish a secure connection between the container/goods and the load carrier
- ▶ Ensure the load is secured in a form-locking manner in order to prevent slippage of the cargo
- ▶ Inform driver of dangerous goods
- ▶ Further obligations for shippers arise from Chapter 1.4.3.1 of the ADR as well as from § 21 of the Ordinance on the International and International Carriage of Dangerous Goods (GGVSEB)

# Good advice

Uwe Wesselhoeft, owner of “Wesselhoeft – Gefahrgutservice und Beratung” advises CargoLine’s headquarters and partner companies on all matters relating to hazardous materials. In this interview, he looks back on his own experiences in the sector and highlights important issues that shippers and freight forwarders should be particularly aware of when dealing with hazardous materials.

## Mr Wesselhoeft, how do you assist CargoLine?

**Uwe Wesselhoeft:** My team and I support 14 CargoLiners in the area of hazardous materials. All their employees receive training every year if they work with these materials – even though it is only required every two years by law. In addition, we keep them and CargoLine headquarters up-to-date on new regulations and perform regular inspections of the hub. The partner companies can also call us with their questions or problems at any time.

## Are there many new regulations at the moment?

This year there are only a few, e.g. concerning the quantities specified in the transport documents or the expiry of transitional arrangements for lithium batteries. Regular training ensures that all the CargoLine partners are familiar with the latest regulations.

## Where do you see problems relating to hazardous materials in the logistics industry?

If there are any, they mostly relate to the prohibition on mixed loads of hazardous materials, load safety, or vehicle equipment. Freight forwarders face significant penalties if they violate these regulations. And once a freight forwarder has been discovered breaking the rules, you can be sure their vehicles will be checked particularly carefully in future. Moreover, news of this kind of misconduct can spread fast and damage the company’s image. For this reason alone, freight forwarders have a huge vested interest in complying with the law. As I said, we support 14 CargoLiners and last year they made a total



Uwe Wesselhoeft, owner of “Wesselhoeft – Gefahrgutservice und Beratung” (Hazardous materials services and consulting).

of just two mistakes in the paperwork – these were corrected immediately. Naturally, such a low level of complaints reflects very well on the image of the alliance as a whole.

## What difficulties do customers encounter with hazardous materials?

Those who handle them regularly know the regulations and have a lot of experience in working with them. It is a different matter for customers who only deal with them occasionally. If they do not clearly know which materi-

als are hazardous, or that they are hazardous at all, the information they provide may be incorrect. Shipments of dangerous goods can also be incorrectly labelled and packaged, or identified using outdated hazardous material safety data sheets. These shipments cannot be transported until the freight forwarder has corrected the errors together with the customer.

## And what do you advise customers?

Firstly, they should transmit all the information specified by the safety data sheet. Secondly, they must label and package their shipments correctly. Furthermore, they should ensure that drivers have all the legal paperwork relating to the hazardous materials. Generally, drivers insist on this because there are significant penalties if they breach these regulations – including fines of up to 2,000 euros, penalty points on their driving license, or even the immobilisation of the vehicle. By the way, the freight forwarder needs these safety data sheets for warehousing enquiries as well. After all, he has to decide whether, and in what quantities, he is permitted to store the materials and ensure the necessary safety precautions are in place. On request, we can even visit the customer together with the CargoLiner to highlight the problems and offer advice.

## Can you explain precisely what is meant by the 1,000-point rule and limited quantities?

If certain set limited quantities are not exceeded, the shipment is exempted from much of the ADR transport regulations. The same applies to the 1,000-point rule. Based on the list of hazardous materials, points are awarded for each packing group. If the consignor remains below 1,000 points, certain legal requirements for the transport of hazardous materials can be neglected, for example ADR-proof packaging and equipment of the vehicle. Moreover, the driver does not require an ADR certificate.

## Let’s go back to the storage of hazardous materials. What is your experience in this area?

We are very satisfied with the freight forwarders with whom we work. They all have the necessary permits from the relevant authorities and handle the goods responsibly. If anything should go wrong, despite these precautions, they know exactly what to do. As a result, the questions they ask us mostly focus on the handling of specific products or authorised quantities. A constant dialogue, such as the one we have with CargoLine, is the best way to prevent problems. 