

A-Z WASTE GUIDE

Waste Management at Tübingen University

Date: Feb 2024

**Dezernat VIII - Bau, Arbeitssicherheit und
Umwelt**

Abteilung Umweltschutz und Energiemanagement



Introduction

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This Waste ABC contains information on how to dispose of waste within the Eberhard Karls University. Please note, however, that the legislator has defined a waste hierarchy according to which waste is prepared for reuse, recycled, recovered or, if this is not possible for technical or economic reasons, disposed of. Even before waste is generated, alternatives should be considered and procurements checked for their sustainability.

The various disposal methods for commercial waste similar to household waste for the non-clinical area of the university are described here.

The disposal of special chemical waste is not the subject of this information. The delimitation of responsibilities is listed on page 5.

Why do we collect separately?

- because this is an essential prerequisite for the recycling of recyclable materials and thus contributes to the conservation of resources and environmental protection (however, prevention should always come first!)
- because the Closed Substance Cycle Waste Management Act and the municipal waste statutes stipulate separate collection
- because separate collection saves us considerable disposal costs

How much waste is there?

The following figures on some of the separated waste collected at the University in 2022 help to demonstrate that the amount is sufficient to make recycling worthwhile.

Paper (Morgenstelle):	appr. 323 t
Polystyrene (Morgenstelle):	appr. 85 m ³
Soil	appr. 22 t
Metal	appr. 9 t
Foil	appr. 22 m ³

Although these waste materials can be recycled, avoiding them in the first place should be paramount!

How much does waste disposal cost?

Disposing of waste (excluding special waste) costs appr. € 300,000 a year.

Non-recyclable waste accounts for the biggest proportion in this. Consistently separating waste therefore produces quick returns.

When you buy something you are already paying for the disposal of the packaging. If the packaging then ends up in the non-recyclable waste bin, you pay for its disposal twice.

The amendment of the Recycling Management Law of 01 June 2012 says that besides packaging other recyclable material made from plastic or metal may also be placed in the Yellow Bag. Paper/Cardboard or glass should still be disposed of in the paper collection or in the bottle bank.

Recycling Centre (Wertstoffhof):

There is a Recycling Centre for the University Departments at Morgenstelle close to Fernheizwerk II (Heating Station II).

It is used as a collection point for several types of waste, i.e. besides skips for glass, metal, paper etc. there is a room for the disposal of electronic goods, batteries, CDs etc. It is also possible to strip electronic goods for parts there.

The Recycling Centre is open for two hours a day: **Mon, Tue, Thu and Fri from 9:30 hrs to 11:30 hrs and Wed from 13:00 hrs to 15:00 hrs.**

The Recycling Centre can be contacted by telephone at 77759 during the opening hours.

Private waste is not accepted!

Delivery outside of these opening hours is also not possible!

How the A-Z Waste Guide is structured:

As regulations governing waste disposal change constantly, the information in this guide on the various disposal methods cannot be considered final.

The main section starts with a short overview on how to dispose of domestic-type waste at the University. All waste types marked with an asterisk * are subsequently dealt with in the appendix in alphabetical order and in greater detail.

Finally there is a section on the different containers that are used by most University departments. These are available from the Procurement Section (Einkauf) at the Central Administration of the University.

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Areas of Responsibility, Contacts, Information

Waste Management Officer – University
Annette Eissler

☎ 77421

Waste Adviser Anita Jenewein

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Waste Management Officer – Hospitals
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Special Waste Officer – University
Dr. Jens Weber

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Drivers' Service – University
Petra Bartmann

☎ 74211

Disposal of Used Fixing and Developing Baths

Photo Chemicals – University
Dr. Jens Weber

☎ 77386

Disposal of Animal Carcasses

*Institution for animal welfare, veterinary services
and Laboratory Animal Science – University and Hospitals*

☎ 80125

Radioactive Waste

Dr. Georg Fehrenbacher

☎ 74185

Chemical Exchange

Head: Dr. Jens Weber

☎ 77386

*Drop-off &
Collection Point* Björn Niederhöfer

☎ 77892


Areas of Responsibility, Contacts, Information
Collection Points

Collection Points

Morgenstelle: Recycling Centre beside Fernheizwerk II (Heating Station II)

Opening Hours: Mon, Tue, Thu, Fri.: 09:30 – 11:30 hrs
Wednesday: 13:00 – 15:00 hrs



Mr Riehle during opening hours:

 77759

The Recycling Centre accepts all domestic-type waste from the University departments as well as batteries, tapes, disks, CDs, expired respiration filters etc.



Talbereich (Town Area): Department of Environmental protection and energy management (Abteilung Umweltschutz und Energiemanagement)
Hölderlinstr. 11,

Annette Eissler
Anita Jenewein

 77421
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<i>Type of waste</i>	<i>Notes</i>	<i>Where to put it</i>
Aluminium*	The production of aluminium is highly water polluting and uses up a lot of energy ⇒ 10 times as much as the production of tin and 27 times as much as the production of glass ⇒ therefore this highly polluting material should be avoided if possible!	<ul style="list-style-type: none"> – Yellow Bag* (Scrunch up small amounts of aluminium into a bigger ball) – Larger amounts can be handed in at the Recycling Centre (Wertstoffhof)
Audio tapes	Please comply with the data protection regulations! If disposing of large quantities please contact the University Waste Adviser.	Non-recyclable waste
Batteries*	Batteries containing heavy metal are a danger to the environment and must therefore not be disposed of with other waste. Batteries must be collected separately. ⇒ Please use mains adapters, rechargeable batteries or solar-powered equipment as an alternative.	Recycling Centre (Wertstoffhof) (cf. Info Sheet "Information on the disposal of batteries")
Bottle caps (on disposable bottles)	Disposable bottles should only be put in bottle bank without bottle caps.	Yellow Bag*
Cans (metal)	Please squeeze the opening of cans shut (to prevent them filling up with other waste before they are being separated via a metal trap)	Yellow Bag*



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<i>Type of waste</i>	<i>Notes</i>	<i>Where to put it</i>
Carbon paper		Non-recyclable waste
Cardboard boxes 	Use to collect paper waste, otherwise fold flat	Paper collection – Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Catalogues 	If unwanted: Return to sender and notify sender	Paper collection – Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
CDs *	CDs are being collected at a central point and then forwarded for recycling.	Recycling Centre (Wertstoffhof)
Ceramics	Do not put in bottle bank!	– Lab glass – Non-recyclable waste
Coffee filters		Organic waste

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Computers*	It is possible to strip equipment for spare parts at the Recycling Centre (Wertstoffhof)	<ul style="list-style-type: none"> – Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Culture dishes		Chemically contaminated operating materials
Disks	Please comply with the data protection regulations!	Recycling Centre (Wertstoffhof)
Disposable bottles	Glass in non-standard colours (e.g. blue, red) should be disposed of as "green glass". If possible, use returnable bottles made of glass	<ul style="list-style-type: none"> – Bottle bank – Yellow Bag* for plastic bottles
Disposable cups	Disposable cups made of plastic can be placed in Yellow Bag. Cups made of paper composites must be placed in non-recyclable waste bin.	<ul style="list-style-type: none"> – Non-recyclable waste – Yellow Bag*
Disposable gloves	<u>Do not place</u> in Yellow Bag	Non-recyclable waste
Disposable towels	Small amounts can be put in organic bin	Non-recyclable waste

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Documents containing protected data	Documents containing protected data (e.g. name, address, date of birth, marital status, personnel number, wage group, references, certificates)	– Recycling Centre (Wertstoffhof) – Shredder in Neue Aula (☎ 77706, 72523)
Electronic waste*	It is possible to strip equipment for spare parts at the Recycling Centre (Wertstoffhof)	– Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Energy saving lamps	Please notify us by telephone before delivery. Energy saving lamps contain mercury – Therefore please do not break them and do not place them in the non- recyclable waste bin!	– Talbereich (town area): Neue Aula ☎ 77706/72520 – Morgenstelle: Recycling Centre (Wertstoffhof) TBA Elektrowerkstatt (Electricians' Workshop) ☎ 74043
Eppendorf tubes		Chemically contaminated operating materials

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Flowers and Plants		Organic waste If your organic bin is not sufficient, organic waste can be taken to the Recycling Centre (Wertstoffhof).
Fluorescent tubes	Please call before delivering tubes. Fluorescent tubes contain mercury – therefore do not break them and do not place them in non-recyclable waste bin!	– Talbereich (town area): Neue Aula ☎77706/72520 – Morgenstelle: Recycling Centre (Wertstoffhof) TBA Electricians' Workshop ☎74043
Food leftovers		Organic waste
Fridges and Freezers (household size)*		– Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Fridges and Freezers (industrial size)*		Call University Waste Adviser


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Furniture	Disassemble and separate (Dispose of wood with wood waste and metal with scrap metal). Useful furniture: ask the waste disposal department for the current status	<ul style="list-style-type: none"> – Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Glass* 	If possible use returnable bottles. Glass in different colours (e.g. blue, red) is treated as green glass. Only put hollow glass (no lab glass or plate glass) in bottle bank!	<ul style="list-style-type: none"> – Returnable bottles should be returned to shop. – Bottle bank – Lab glass is disposed of separately
Inkjet cartridges*	cf. Waste Info Sheet "How to dispose of toner cartridges"	Recycling Centre (Wertstoffhof)
Lab glass* 	Lab glass has a higher melting point than normal glass, therefore it must not be put in bottle bank. Laboratory glassware must be free of chemical or biological contamination - otherwise special waste disposal!	<ul style="list-style-type: none"> – Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof) (Lab glass skip)
Lids of disposable bottles, jars etc.	All lids should be removed before bottles are placed in bottle bank!	Yellow Bag*
Light bulbs	If possible use energy saving light bulbs	Non-recyclable waste Do not put in bottle bank!!

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Magazines	Please cancel unwanted and excess magazines.	Waste paper collection – Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Magnetic tapes	Please comply with the data protection regulations. If disposing of large amounts, please notify University Waste Adviser.	non-recyclable waste
Packaging	Packaging made of glass or paper should be disposed of at relevant collection points!	Yellow Bag*
Paint buckets	Without liquid contents, dry	– Yellow Bag* – otherwise non-recyclable waste
Paper* (see* under waste paper)	Use paper sparingly, make double-sided photocopies, use recycling paper. Unlike recycling paper, the production of virgin fibre paper leads to deforestation, uses up a lot of energy and pollutes our water and the atmosphere.	Waste paper collection – Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof) Please comply with the data protection regulations* (documents might need to be shredded first).

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Paper towels	Paper towels can be composted and absorb moisture in organic bins. Do not discard as waste paper.	Non-recyclable waste Organic waste
Petri dishes		Chemically contaminated operating materials
Pipette tips	as above	Chemically contaminated operating materials
Plastic canisters (without contents and without toxic residues)	If canisters contained toxic contents, they have to be disposed of as special waste (Contact Dr. Weber)	Yellow Bag*
Plastic tubes		Chemically contaminated operating materials
Plastic waste (in general)*		Yellow Bag*
Plate glass	Do not put plate glass in bins for normal glass. For larger amounts contact University Waste Adviser.	Lab glass
Polystyrene*	Clean polystyrene can be taken to the Recycling Centre (Wertstoffhof) for recycling. Dirty polystyrene must be disposed of in non-recyclable waste bin.	Please return to supplier if possible – Recycling Centre (Wertstoffhof) – Non-recyclable waste – Yellow Bag*

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Polystyrene chips*	Can be collected at the Recycling Centre (Wertstoffhof).	Recycling Centre (Wertstoffhof) Non-recyclable waste
Print ribbons		Non-recyclable waste
Printers	It is possible to strip equipment for spare parts at the Recycling Centre (Wertstoffhof)	– Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Rechargeable batteries Li-batteries, defective or >500g see info sheet battery disposal	In comparison to normal batteries, rechargeable batteries can be recharged up to 1,000 times ⇒ This reduces the amount of waste. Due to their high metal content, recycling is worthwhile. Li-batteries: poles must be taped off, preferably best disposed of in original packaging. FIRE HAZARD!	Recycling Centre (Wertstoffhof) After registration at the recycling center deliver Tel. 77759
Respiration filters (expired)		Recycling Centre (Wertstoffhof)

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<i>Type of waste</i>	<i>Notes</i>	<i>Where to put it</i>
Scrap metal		<ul style="list-style-type: none"> – Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Tea bags		Organic waste
Tins and tin canisters (uncontaminated)	Please squeeze the opening of cans shut before putting them in the Yellow Bag to prevent other material from getting into the can.	<ul style="list-style-type: none"> – Yellow Bag* – Scrap metal skip (Wertstoffhof (Recycling Centre))
Toner cartridges*	cf. Waste Info Sheet "How to dispose of toner cartridges".	<ul style="list-style-type: none"> – Talbereich (town area): Call drivers' service – Morgenstelle: Recycling Centre (Wertstoffhof)
Transparencies		Yellow Bag*
Transport packaging	cf. general information on packaging*	<ul style="list-style-type: none"> – Return to distributor or shop – Yellow Bag*
Video tapes and cassettes	Please comply with the data protection regulations! If disposing of large quantities please contact the University Waste Adviser	Non-recyclable waste

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<i>Type of waste</i>	<i>Notes</i>	<i>Where to put it</i>
Waste paper*	Use recycling paper if possible. The production of “white“paper leads to deforestation, water pollution and uses up a lot of energy. Please be aware of how much paper you use ⇒ e.g. make double-sided photocopies and only print out what you really need.	<ul style="list-style-type: none"> – Paper collection – Call drivers’ service – Recycling Centre (Wertstoffhof) Morgenstelle Please comply with the data protection regulations* Documents might need to be shredded before disposal.
Waste paper (coated or dirty)	e.g. Disposable coffee cups ⇒ Please use re-useable cups, i.e. KeepCups or Recups	Non-recyclable waste
Waste wood*	Disassemble as much as possible.	<ul style="list-style-type: none"> – Talbereich (town area): Call drivers’ service – Morgenstelle: Recycling Centre (Wertstoffhof)
Wired glass		see plate glass
Writing instruments	Use refillable materials if possible	Non-recyclable waste

Waste Paper

☹ Paper consumption in Germany causes large scale damage to the environment, for example it has a negative impact on the greenhouse effect and on the acidification of the soil.

About 20% of the annual logging in the natural forests of Canada and Scandinavia is due to virgin fiber paper demand. Acidic or alkaline sulfuric acids are used to dissolve out the pulp. Chlorine dioxide is used for bleaching in 90% of cases.

Using recycling paper, however, saves fossil energy sources, reduces the greenhouse effect and summer smog and cuts down on the acidification of the soil and the over-fertilisation of our soil and our water!!!

Furthermore, 12 – 15 million hectares of forest disappear every year – an area three times the size of Switzerland.

☺ **RECYCLING TIPS:**

Reducing your paper consumption is even better than recycling, therefore:

- Please make double-sided copies if possible.
- Only print out documents if really necessary.
- Use circulars or notice-boards instead of making photocopies for everyone.
- Paper with print only on one side can be re-used as draft paper.
- Products of the student initiative "Papierpilze" use <https://papierpilz.wordpress.com/>

When using paper, please make a **conscious decision to use recycling paper**. Nowadays, recycling paper is of the same quality as "white" paper!

WHERE TO PUT IT

In the town areas (Talbereich) waste paper is usually disposed of at the general waste paper collections. If you have to dispose of large quantities, our drivers from the drivers' service will take it directly to the refuse contractor. At the Recycling Centre at Morgenstelle there is a waste compactor where waste paper can be disposed of.

Aluminium

☹ Compared to other materials, aluminium significantly pollutes water and uses up energy resources. It takes four times as much energy to produce a ton of aluminium as to produce a ton of paper and ten times as much as to produce a ton of tin and 27 times as much as to produce a ton of glass.

Although both the raw production and the recycling of aluminium use up a lot of energy and cause water and air pollution, recycling is still significantly better. Melting down aluminium only uses up 5-10% of the energy required for the raw production of aluminium. Therefore recycling makes sense, especially because aluminium is usually uncontaminated.

Avoiding it altogether should be paramount, however!

☺ **RECYCLING TIPS:**

- Avoid aluminium in the first place if possible.
- Do not use aluminium for packaging at all, there are other packaging materials available that do not have such a negative impact on the environment.

WHERE TO PUT IT

Aluminium foil, lids and dishes belong in the Yellow Bag. Scrunch up small pieces into bigger balls. Small pieces fall through a sieve when the Yellow Bags are sorted and then end up in non-recyclable waste.

There is also an aluminium bin at the Recycling Centre at Morgenstelle for disposing of aluminium.

If you return large amounts to the refuse contractor, you might be able to get money for it.

Batteries and Rechargeable Batteries

⊗ **Batteries** may contain heavy metals such as lead, cadmium and mercury. If after use they are disposed of as non-recyclable waste, they might end up in land-fill sites or in waste incinerators and contaminate the environment. Heavy metals accumulate in plants, animals and also in humans and can lead to serious health problems. **Used batteries must therefore be collected separately. They must not be placed in non-recyclable waste bins.**

Rechargeable batteries are a sensible alternative to normal batteries, even though they contain large amounts of heavy metals. If charged and discharged at the right intervals, they can be recharged about 1,000 times and thus reduce the volume of waste considerably. Due to their high metal content, recycling rechargeable batteries is worthwhile.

Li batteries and accumulators must be given to the battery collection **in original packaging or with taped contacts**. Defective or $\geq 500\text{g}$ must be brought to the recycling center by appointment - **ATTENTION FIRE HAZARD!**

☺ **RECYCLING TIPS:**

- Do not use ordinary batteries at all but use mains adaptors or at least use rechargeable batteries.
- Give preference to solar-powered equipment (pocket calculators for example).

WHERE TO PUT IT

Batteries and rechargeable batteries can be disposed of at the following collection point:

Morgenstelle: Recycling Centre (Wertstoffhof) Opening hours:

Mon, Tue, Thu, Fri: 9:30-11:30 hrs

Wed: 13:00-15:00 hrs

You will find more detailed information in the attached Waste Info Sheet "Disposal of batteries".



Waste Info Sheet

Disposal of Batteries

All batteries can be returned to GRS free of charge since the introduction of the Battery Act. Costs for the disposal of batteries are included in the purchase price. GRS (Gemeinsames Rücknahmesystem Batterien) is a foundation and includes large battery producers and the central association of electrical engineering and the electrical industry. They organise the returning system for batteries in accordance with the Battery Act – regardless of the type, brand or origin of the batteries.

All used ordinary or rechargeable batteries, regardless of whether they contain hazardous materials or not, including button cells, can be collected in a container and then taken to the existing collection points.

In the case of lithium batteries/accumulators, the terminals must be taped off and they may only be placed sporadically in battery collection containers (≤10%)

Batteries can be handed in at the following University **collection point**:

Recycling Centre (Wertstoffhof) beside Heating Station (Fernheizwerk) II

**Opening hours Recycling Centre
(Wertstoffhof):**

Mon, Tue, Thu, Fri: 9:30 - 11:30 hrs

Wed: 13:00 - 15:00 hrs

Empty starter batteries (for field surveys) that were bought via the Technische Zentrallager (central technical store) can also be handed in there. All other starter batteries must be disposed of privately, i.e. returned to where they were purchased.



Waste Info Sheet

Disposal of CDs

CDs mainly consist of polycarbonate. A pressed synthetic disc is coated in aluminium and varnished with a protective layer. This compound is broken up during the recycling process, either by a mechanical or by a chemical process. Thus a valuable synthetic material can be regained.

CDs at Universität Tübingen are collected at a central point and forwarded for recycling.

CDs can be handed in at the following **collection point** at the University:

Recycling Centre (Wertstoffhof) beside Heating Station (Fernheizwerk) II

**Opening hours Recycling Centre
(Wertstoffhof):**

Mon, Tue, Thu, Fri: 9:30 - 11:30 hrs
Wed: 13:00 - 15:00 hrs

Please comply with the data protection regulations! If a CD contains confidential data, make a thick scratch across the surface with a sharp instrument.

Computers

Computers, cell phones and the like produce around 33 million metric tons of the greenhouse gas carbon dioxide (CO₂) each year, which is more than the entire German air traffic. In Germany alone, 25 coal-fired power plants are needed to meet the electricity requirements of information technology.

☺ RECYCLING TIPS:

When buying a new device, first check how much energy it uses. Using a multiple socket with an on-off switch prevents electricity being wasted when the device is switched off. At the Recycling Centre (Wertstoffhof) old devices can be stripped for spare parts!

WHERE TO PUT IT

Computers that are **not in working order** must be disposed of as electronic waste. They can be handed in at the Recycling Centre (Wertstoffhof) or collected by the drivers' service.



Electronic Waste

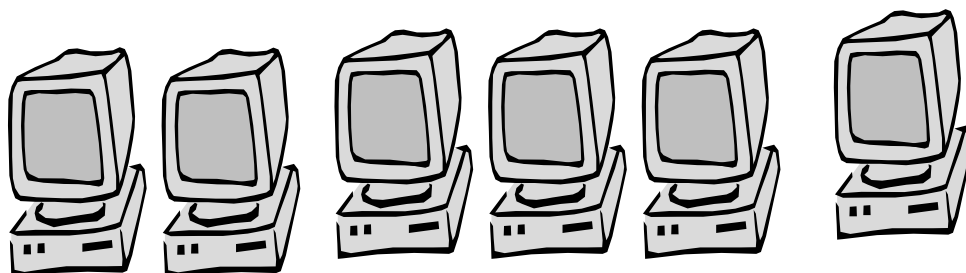
Devices containing electrical and electronic parts include valuable raw materials (e.g. precious metals) which are worth recovering. More than anything, however, some parts contain hazardous substances that are damaging to the environment and must be disposed of separately. Therefore, no electronic goods must be placed in non-recyclable waste bins.

☺ RECYCLING TIPS:

- When purchasing new equipment, look out for low energy consumption, durability, an upgrade guarantee and make sure it can be repaired.
- When buying new, it is a good idea to ask the dealer if the old device can be returned. This should be stipulated in the contract at the time of purchase.
- It is possible to strip obsolete devices for spare parts at the Recycling Centre (Wertstoffhof).

WHERE TO PUT IT

Electronic waste can be taken to the Recycling Centre (Wertstoffhof). In the town area (Talbereich) our drivers' service can collect electronic waste with prior notification and take it to the correct disposal point.



Glass

Used glass and returnable bottles must not be put in the non-recyclable waste bin. Our cleaning staff are instructed not to empty bins that are incorrectly filled.

Buildings with vending machines selling returnable bottles also contain return machines. Where disposable glass bottles are unavoidable, they must be placed in the bottle banks.

Currently there are bottle banks in the following locations:

- At the Recycling Centre (Wertstoffhof). There is also a separate skip for lab glass.
- Behind the Mensa Morgenstelle
- Beside Lothar-Meyer-Bau (Wilhelmstr. 56)
- <https://www.abfall-kreis-tuebingen.de/entsorgen/wohin-mit-den-abfaellen/container-standorte/altglascontainer-stadt-tuebingen/>

Glass needs to be separated as follows:

1. Hollow glass

Separate according to colour (white, brown, green). Glass in other colours is disposed of as green glass.

This collection method is the same as in public bottle banks. Lids must be removed (Yellow Bag).

2. Lab glass, other types of glass

Plate glass and lab glass with a high melting point **must not** be put in the skips for hollow glass. There is a separate lab glass skip at the Recycling Centre (Wertstoffhof) **for clean** lab glass. If cleaning is not possible, lab glass can be disposed of as special waste at the special waste collection point in the chemicals store. Lab glass from the town area (Talbereich) can be taken to Morgenstelle by the drivers' service upon prior notification.

The following materials should also be placed in the lab glass skip:

Ceramics, window glass, wire glass and other plate glass

Light bulbs belong in the non-recyclable waste bin. Fluorescent tubes and energy saving light bulbs must be disposed of separately (cf. "energy saving lamps" in the A-Z guide)

No other types of glass must be placed in the Hollow Glass skips (Lab glass, other colours, light bulbs, plate glass etc.)!!!!

☺ RECYCLING TIPS:

Using packaging several times makes more sense than recycling it, returnable bottles for example. When purchasing goods, you should look out for regional products.



"Yellow Bag" (Packaging Waste)

When you purchase a product with disposable packaging, the purchase price already includes the cost for the disposal of the packaging. Packaging can generally be recycled.

⊗ This might sound good, however most products cannot be recycled in a way that allows something of the same quality to be produced. Often, materials that are hard to recycle end up being used to make different, inferior products. Critics call this downcycling instead of recycling.

☺ **RECYCLING TIPS:**

If possible, buy products unpacked or in packaging that can be re-used several times.

WHERE TO PUT IT

In Tübingen Yellow Bags are collected every two weeks and taken to a recycling plant.

You will find the Yellow Bags collection dates in the town area (Talbereich) in the Tübingen Waste Calendar (Abfallkalender).

Furthermore there is a waste compactor for Yellow Bags at the Recycling Centre (Wertstoffhof).

Yellow Bags are available from the Procurement Section (Beschaffungsabteilung) of the Central Administration.

All waste made of plastic and metal may be placed in the “Yellow Bag“ (if uncontaminated and not marked “hazardous”!).

- Synthetic materials
- Composite materials/drink cartons
- Food and drink cans
- Aluminium
- Tin

For example foamed packaging such as trays for pre-packed fruit or vegetables, yoghurt containers, cling film, juice or milk cartons, vacuum packaging, aluminium foil, crisp bags, food and drink cans

The following items **must not** be put in the “Yellow Bag“:

Where to put it

Disposable gloves

Non-recyclable waste. If contaminated, autoclave first or dispose of as hazardous waste

Packaging marked hazardous or with residues

Special waste disposal
Auf der Morgenstelle 22
Mon – Fri 8:00 – 11:00 hrs
afternoons: Please ring for appointment
Tel. 77892, 77386

Glass

Hollow glass must be put in bottle bank.
Other types of glass must be disposed of in lab glass skip at the Recycling Centre (Wertstoffhof)

Paper

Waste paper collection, Recycling Centre (Wertstoffhof)

Waste Wood

Scrap Wood means both treated and untreated wood (coated or varnished).

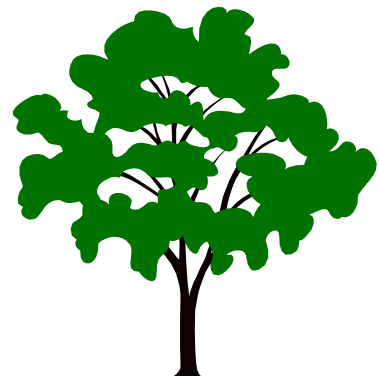
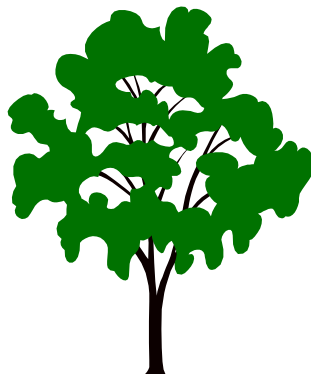
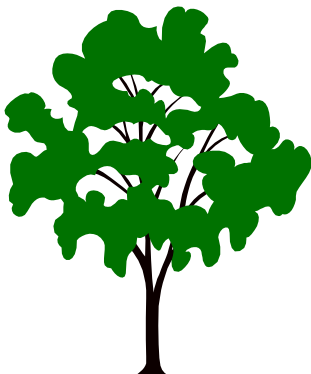
As much as possible, scrap wood must be cleared of other materials such as nails, metal fittings etc. To save space, scrap wood should be taken apart if possible.

Where to put it

There is a scrap wood skip at the Recycling Centre (Wertstoffhof). If you need to dispose of wood that has been creosoted or treated in any other way, you must notify us before delivery. **It must not be placed in the scrap wood skip!**

Scrap wood from the town area (Talbereich) can be taken to the Recycling Centre or to the refuse contractor by the drivers' service by prior appointment.

Saw dust, wood shavings or **wood wool** are recyclable wood waste and can be handed in at the ZAV (Association for Waste Management in Reutlingen/Tübingen) in Dußlingen. They need to be separated beforehand, however. No dust must arise upon delivery, if necessary waste must be dampened or placed in tear-resistant bags.



Fridges and Freezers

☹️ The cooling agents in some refrigerators still contain harmful substances. Apart from the dangerous chlorofluorocarbons (CFCs) contained in the cooling agent and in the insulating foam, they sometimes also contain other substances such as machine oil and heavy metals.

When chlorofluorocarbons (CFCs) leak out, they pass into the stratosphere and destroy the ozone layer which protects the Earth from hard UV radiation.

Old refrigerators “eat“ electricity: an old device uses up appr. 400 kWh a year whereas an energy-efficient new device uses from appr. 83 kWh.

☺️ **RECYCLING TIPS:**

Check the energy consumption when buying a new device. (A+++ uses the least electricity, up to 45% less than A). If possible, ask the dealer if he takes back the old device. This should be stipulated in the contract at the time of purchase.

WHERE TO PUT IT

Domestic-size refrigerators can be collected by the drivers' service.

Talbereich (town area): Call drivers' service
(Ms Bartmann 📞 74211)

Morgenstelle: You can hand in the devices at the Recycling Centre (Wertstoffhof) at the usual opening hours
Mon, Tue, Thu, Fri 9:30 – 11:30 hrs,
Wed 13 - 15 hrs).

If you need to dispose of a refrigerator that is oversized, please call the University Waste Adviser.

Fluorescent and Energy Saving Lights

⊗ Fluorescent tubes and discharge lamps contain on average appr. 20 mg of mercury. Because they contain mercury, fluorescent and energy saving lights of all types pose a problem. **Do not break the bulbs under any circumstances. Even in small doses, mercury is a major health-hazard.** This type of bulb must therefore not end up in the non-recyclable waste bin because at some stage during the disposal, the bulb will break und mercury will leak into the environment.

Using the correct methods, the components of the above bulbs can be separated almost completely and used for recycling.

We therefore have separate collections for fluorescent tubes, mercury vapour lamps, sodium vapour lamps and other discharge lamps.

WHERE TO PUT IT

Recycling Centre (Wertstoffhof)

There are two collection points run by the electricians of the Technische Betriebsamt:

Morgenstelle: Contact TBA, ☎ 74043

Neue Aula: Contact HDLZ, ☎ 77706/72520

If required, transport to the collection point can be organised via the drivers' service. Please make an appointment with Ms Bartmann, ☎ 74211.

If you deliver the bulbs yourself, please notify the relevant contact person beforehand.

Do not break obsolete light bulbs under any circumstances!

☺ RECYCLING TIPS:

If possible, use LEDs.

Polystyrene/-chips

☹ Styropor is a registered trademark of BASF AG for expandable polystyrene (PSE). It is produced from the monomer styrol which is rumoured to be carcinogenic.

In order to produce foamed polystyrene, foaming agents are added.

Even though clean, uncontaminated polystyrene can be recycled infinitely, its production, use and disposal causes many problems for the environment.

Polystyrene is very suitable for recycling, but because there is an excess supply, recycling it is not always cost-effective. Polystyrene can only be used for recycling if it is uncontaminated and without any residues (stickers, marks etc.).

☺ **RECYCLING TIPS:**

- Use reusable packaging.
- If the use of reusable packaging is not possible, ask suppliers about more environment-friendly packaging such as wood shavings, cellulose chips or used paper and cardboard.
- If possible, re-use styrofoam/chips several times.

WHERE TO PUT IT?

Collect clean polystyrene in bags and take it to the Recycling Centre (Wertstoffhof) or have it collected by the drivers' service.

Dirty styrofoam and styrofoam chips must be placed in the non-recyclable waste bin.

It is almost impossible to distinguish styrofoam chips from cellulose chips and similar types, therefore separating and recycling them is almost impossible.

Styrofoam can also be placed in the Yellow Bag. However, it is likely to get dirty and can probably not be used for recycling.

Toner Cartridges, Ink Cartridges

Such cartridges are expensive and technically sophisticated products consisting of a robust plastic case which is filled with rollers, cog wheels, a gauge and a handful of toner.

Empty cartridges must not be placed in the non-recyclable waste bin or in the Yellow bag!!!

It is possible to recycle cartridges and thus reuse them several times.

WHERE TO PUT IT

Empty toner cartridges can be brought/sent to the Recycling Centre (Wertstoffhof).

Please refer to the more detailed information on disposal in the Waste Info Sheet below.

☺ RECYCLING TIPS:

- Only hand in completely empty cartridges for recycling or re-filling. To prevent damage to the cartridges, please hand them in in their **original packaging**.
- Do not make any unnecessary print-outs or photocopies.
- Use re-fillable cartridges.



Waste Info Sheet

On the Proper Disposal of Toner Cartridges

Important note for online devices:

The change of toner and waste toner containers for all devices connected to the network will be automated by employees of the company Morgenstern. An explicit request for consumables is therefore no longer necessary for these devices.

Kyocera toner return for offline devices

The return of Kyocera toner cartridges and the toner containers of the Morgenstern rental devices is taken over by the manufacturer Kyocera itself.

Collection boxes for Kyocera consumables can be requested free of charge from the Kyocera company.

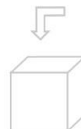
Link Kyocera registration form: <https://kyocera.takeback.eu/auth/login>

The collection of the full collection boxes then takes place also via the Kyocera company -> procedure see slide on next page

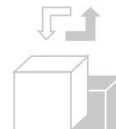
Wählen Sie den gewünschten Service



Rücksendung
von vollen Sammelbehältern / Einzeltonern



Bestellung
von leeren Sammelbehältern



Austausch
volle Sammelbehälter gegen leere Sammelbehälter

Entsorgung von Kyocera- Verbrauchsmaterialien

mit der Kyocera-Sammelbox – kostenlos und effizient

- **Und so einfach geht es ...**
- leere Toner / Resttonerbehälter in den schwarzen Folienbeutel der neu gelieferten Einheit packen und in die Kyocera-Sammelbox legen

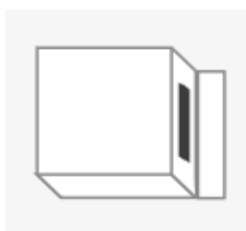


- **Box ist voll ?**
oder
- **neue Box wird benötigt ?**

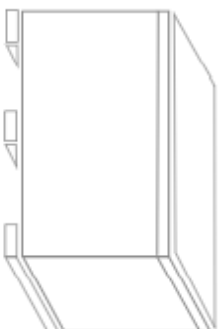
- **Auftragserteilung per ...**
 - Telefon (02131 1226-22)
 - Web: <https://kyocera.takeback.eu/auth/login>



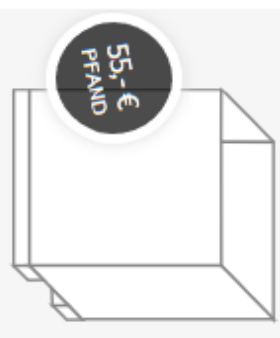
Karton Box „M“
Maße (LxBxH): 60x40x30 cm
für ca. 15 Toner
Max. 20 kg pro Box



Karton Box „L“
Maße (LxBxH): 60x40x70 cm
für ca. 160 Toner
Max. 20 kg pro Box



Karton Box „XL“
(Palettenbox)
Maße (LxBxH): 116x76x75 cm
für ca. 100-250 Toner
!Lässt sich im vollen Zustand nur mit Hubwagen und Lastenaufzug befördern!



Multi Use Box „XL“
(Palettenbox)
Maße (LxBxH): 120x100x100 cm
für ca. 100-300 Toner
!Lässt sich im vollen Zustand nur mit Hubwagen und Lastenaufzug befördern!

➤ **All other empty toner cartridges:**

Recycling Centre (Wertstoffhof)

Empty toner and ink cartridges can be returned to Lyreco for recycling.

**Please return empty toner cartridges in their original packaging!
The recycling system for toner cartridges works very well –
therefore they do not belong in the non-recyclable waste bin!**

Separate bins allow waste to be sorted quickly and simply. It needs to be obvious for everybody what type of waste belongs into which bin.

Most departments already have a collection system that works well. It doesn't make sense to throw out existing bins just because they don't match the colour code and description that follows. There is no need to change existing collection systems that work well. They can be added to and clearly marked with the relevant labels where required.

On the following pages we are going to describe the bins used inside buildings. Most University departments already use them.

Colour coding and stickers make it easier to separate waste.

The following colour codes are used at the University:

blue: Paper
grey/brown: Non-recyclable waste
green: Organic waste
yellow: Yellow Bag (Recyclable materials)

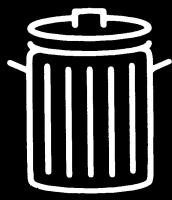
The following stickers with a short description of the different types of waste are available from the University Waste Advisers:

Non-recyclable waste, organic waste, paper, yellow bag, polystyrene, CDs
(see below).

Waste bins are checked by the public refuse contractor. If they contain too many wrong items, they will not be collected. **Our cleaning staff have therefore been instructed not to empty bins which are incorrectly filled.**

Please do separate your waste!

Restmüll *Non-Recyclable Waste*



Was gehört da rein?

z.B. Asche, Glühbirnen, Hygieneartikel, Einmalhandschuhe, Kerzenwachs, Kehrlicht, kleine kaputte Gegenstände, Kohlepapier, Leder, Porzellan

Was nicht?

Alle organischen Abfälle (Bioabfall), Papier, Pappe, Glas, Verpackungen, Problemstoffe, Sperrmüll, Holz, Metall, Aluminium, Korken, Neonröhren und LEDs

Grey
sticker

Bioabfall *Organic Waste*



Was gehört da rein?

Alle organischen Abfälle: Obst- und Gemüsereste, Speisereste, Kaffee-/Teesatz, Eierschalen, abgestorbene Zimmerpflanzen, Küchenpapier

Was nicht?

Korken, Leder, farbige Papierservietten, Textilien, Kehrlicht, Gummi, Plastiktüten, Hygieneartikel

BIOABFALLEIMER MIT ZEITUNGSPAPIER AUSLEGEN!

Green
sticker

Gelber Sack Packaging Waste



Was gehört da rein?

Entleerte und nicht kontaminierte Verpackungen (ohne Gefahrstoffzeichen!) und Gegenstände aus Kunststoff, Metall, Aluminium oder Verbundstoffen, z.B. Folien, Einweggeschirr, Joghurtbecher, Konservendosen, Tuben, Getränkekartons, To-go-Becher

Was nicht?

Einmalhandschuhe, Kanülen, Papier / Pappe, Glas, Bioabfall, Kork, mit Chemikalien verunreinigte Materialien, Sonderabfälle

Yellow
sticker

Papier / Pappe Paper / Cardboard



Was gehört da rein?

Einzelne Zeitungen, Zeitschriften und Kataloge, Papierbögen, Papiertüten, Knüllpapier, gefaltete Papier- und Pappverpackungen (keine Kartonagen).

Was nicht?

Verschmutztes und beschichtetes Papier, Hygienepapier, Küchenpapier, Kartonagen

Keine Stapel von Büchern oder Zeitschriften

Blue
sticker

... for Waste Paper

In offices and labs, waste paper is generally collected in blue plastic bins (available from the Procurement Section (Einkauf) at Central Administration). They should only be used for scrunched up paper and paper that cannot be stacked.

In the town area, catalogues, magazines (unless they are single copies) and cardboard boxes are placed directly in the paper bins.

At Morgenstelle there are bins that contain compartments for waste paper on every floor.

Cardboard boxes have to be taken to the central collection point (usually on first floor) by the staff members themselves.

Catalogues, magazines and books have to be taken to the Recycling Centre (Wertstoffhof) by the staff members.

Our cleaning staff put waste paper from the offices and labs into paper bags. Blue plastic bags are only allowed if there is no sheltered storage area.

What belongs in the waste paper bin?

Letters and envelopes for example, single magazines, newspapers, paper bags, scrunched up paper, writing and note paper, advertisements, catalogues, paper and cardboard packaging (no cardboard boxes) ...

*What does **not** belong in the waste paper bin?*

Dirty paper (with grease or paint stains) for example, coated paper, coloured napkins, crepe paper, carbon paper (belongs in non-recyclable waste bin), disposable towels, kitchen towels and tissues (they belong in the organic waste).

Cardboard packaging must not be disposed of in the waste containers in the buildings!

... for Organic Waste

In most buildings there are containers for organic waste in the corridors. They should be lined with paper to facilitate emptying and cleaning them. In the town area (Talbereich) the cleaning staff empty them into the organic bins outside. At Morgenstelle contents are taken to the organic bins at the Recycling Centre (Wertstoffhof) by the refuse contractor.

To avoid unpleasant smells, only containers with lids should be used for organic waste.

Organic waste can be turned into valuable compost. If it is put in the non-recyclable waste bin it will be incinerated and therefore wasted.

From 2015 the Recycling Management Law makes the separate collection of organic waste obligatory.

What belongs in the organic bin?

All organic waste, for example leftover fruit and vegetables, leftover food, gone-off or mouldy food, eggshells, coffee grinds and tea leaves, filters, teabags, disposable towels, dead plants ...

*What does **not** belong in the organic bin?*

Corks for example, leather, coloured paper (including napkins), cigarette butts or ashes, textiles, dirt, vacuum cleaner bags, rubber, plastic bags, hygiene products ...

... for Yellow Bag (Recyclable Materials)

There are special Yellow Bag stands available from the Procurement Section (Einkauf) at Central Administration. These can be used for collection at a central point. If the collection point is not in a closed-off room, the use of such a container should be cleared with the Fire Prevention Department (Brandschutz) first.

Yellow Bags are available from the Procurement Section (Einkauf).

What belongs in the Yellow Bag?

All waste made of plastic or metal or composites (which are not marked "hazardous" and which are not contaminated). Waste needs to be roughly cleaned and empty.

Please note:

Do not place different types of waste inside one another.

Scrunch up aluminium pieces into fist-size balls (small parts fall through the sieve at the sorting plant). (There is a separate collection of aluminum at the university collection points - the proceeds here benefit the university).

Squeeze metal cans shut at the opening to stop them from filling up with other waste.

*What does **not** belong in the Yellow Bag?*

Paper and cardboard for example, glass, cork, disposable syringes, shoes, textiles, non-recyclable waste, food leftovers

☺ **RECYCLING TIPS:**

If possible, use packaging that can be re-used several times.

... for Non-recyclable Waste

Residual waste is collected in corridors, laboratories and usually in tea kitchens.

What belongs in the non-recyclable waste bin?

Light bulbs for example, hygiene articles, disposable gloves, dirt, carbon paper, leather, ceramics, vacuum cleaner bags, paper with coloured print (also napkins), cigarette butts ...

*What does **not** belong in the non-recyclable waste bin?*

Organic waste for example, paper, cardboard, hollow glass, plastics, metal, aluminium, other recyclable materials, hazardous materials.

