

February, 2024

Declaration of Aurubis AG, D-44532 Lünen, in the range of processing secondary copper and precious metals bearing raw materials, such as electronic scrap

Consecutively, we will confirm your requests subject to our recycling facility:

1. The regularity of work contracts

Work contracts are on principle made in the frame of legal and negotiated (union of chemical industry) guidelines.

2. Insurance cover

The insurance covers all matters concerning third party liability (production, environment and commercial excess).

3. Health&Safty of work place

Aurubis sites are working according to all legal requirements. The health&safety management is coordinated by our corporate department. Locally three specialists for health&safety supports and reports to the plant management. As of June 2021 we finished the auditing process according to ISO 45001.

4. Absence of legal proceedings

There are no legal proceedings or convictions reported in the last three years for violations or provisions relating to environmental protection and Health & Safety or work place.

Please consider in this context updated chapters due to compliance in our annual report

<https://www.aurubis.com/en/investor-relations/publications/annual-reports>

and our sustainability report

<https://www.aurubis.com/en/responsibility/reporting-kpis-and-esg-ratings>

5. Environmental safeguarding

Aurubis Lünen operates since the year 1997 an environmental management system according to ISO 14001 and EMAS. An annual report including local site data is published.

<https://www.aurubis.com/en/responsibility/reporting-kpis-and-esg-ratings>

Aurubis Lünen processes waste of electrical and electronic equipment (WEEE) like PCBs and de-polluted equipment completely in its own plant without any subcontractor (final treatment). Aurubis Lünen is certified according to WEEELABEX/CENELEC Standard on End-Processing of WEEE fractions since December 2018. Re-Certification was finished in July 2023. Additionally Aurubis Lünen is certified according to German waste management ordinary.

<https://www.aurubis.com/en/products/recycling/recycling-at-aurubis>

Please note that not all published documents are available in English language.

There is no expiration date for our permits. As part of our environmental report there will be a signed "Declaration of Validity" by our Environmental Verifiers which confirms our environmental sound operation.

Products of our recovery process are copper cathodes, lead-tin alloy, nickel sulfate, iron silicate sand and KRS-oxide a zinc-containing flue dust. Precious metal contents are enriched in the so-called anode slime. The final refining of precious metals such as gold and silver is held centrally for all sites in the Aurubis precious metal plant in Hamburg.

A high proportion of the aluminum content of equipment scrap is supplied as a fraction of about 95% purity to aluminum recycling.

In addition to a comprehensive description of our recovery process, some explanations are given to particular aspects of our recycling process below.

**A) Declaration of local competent authority according to our recycling process
(Regulation EG no 1013/2006 on shipment of waste article 14
(document only available in German)**

<https://www.aurubis.com/de/produkte/recycling-bei-aurubis>

The local competent authority (BR Arnsberg) authorizes the requesting of our pre-consent in accordance with article 14 of Regulation (EG) no. 1013/2006 on shipment of waste temporarily **for the period from 12th of October 2023 to 11th of October 2035.**

This pre-approval applies to the following activities for the recovery of waste:

Name, registration number and address of the recovery facility:

Aurubis AG, Kupferstraße 23, 44532 Lünen, Germany

Waste Registration number: E978 97 118

Description of the technologies employed including R-Codes:

Aurubis operates at Lünen a plant for the production of non-ferrous crude metals from secondary raw materials. The secondary raw materials are mainly processed in the smelting plant, but also partly in the material preparation plant and in the tank house/leaching plant.

In addition to 99% blister copper, zinc oxide, lead-tin alloy and iron silicate sand are generated. The blister copper is refined in a further electrolytic treatment step to high purity electrolytic copper.

The recovery process is R4: Recycling/Recovery of metals and metal compounds.

B) Main products are:

Copper anodes and cathodes, use as raw material in (secondary) metal industry

Aurubis Cathodes are LME listed and of grade A quality (> 99,995 % Cu). Copper cathodes are used to produce any kind of copper products, like wire, sheets etc.

REACH- №. 01-2119480154-42-0000

Precious metals, use as raw material in (secondary) metal industry

Aurubis is producing gold and silver as ingots or granules in pure quality for any product purpose. All other precious metals like platinum, palladium are sold as a solution for external final extraction.

REACH- №. gold: 05-21195555669-21-0000

REACH- №. silver: 01-21195555669-21-0000

Lead—tin alloy, use as raw material in (secondary) metal industry

Our lead-tin alloy is sold to a refining plant where lead and tin are separated and sold as refined metals to the market.

REACH- № lead: 01-2119513221-59-0051

REACH- № tin: 01-2119486474-28-0009

C) Use of plastics

In our pyrometallurgical process KRS (Kayser Recycling System) plastics and organics will be directly used only when they are present as composite materials (eg circuit-board material). Recovery of plastics in this reducing set melting process is first and foremost a use as a reducing agent under substitution of coke or petcoke. The reaction itself is exothermic, i.e. we use the generated energy as fuel to substitute oil.

The generated heat is transferred directly to the melt. Heat which is connected to the off-gas is transferred to steam in a boiler. The steam is used for direct heat usage and power generation by a combined heat and power turbine.

Due to the cancellation of the calorific value clause in §8 para 3 KrWG (German Circular Economy Act), Aurubis AG identifies as of January 2017 all recovery calculations to be 100 % recycled respective the recycling of organic content from composite materials (such as printed circuit-board material).

The classification is in accordance with Waste Framework Directive (RL 2008/98 / EC) Articles 3 and 4 and annex II (R4 Recycling Process) as well as KrWG §6 and §8.

This classification in accordance to waste acts does not mean, that there is any thermal recovery. Thermodynamically please see C), passage 1 and 2.

Materials containing plastic housing, such as photocopier, computers, network devices get through our material handling unit (MV-ZS) before recovery in the pyrometallurgical process. The material handling unit is certified as Entsorgungsfachbetrieb (certified waste management facility) and

according to CENELEC 50625 standard. These plastics are recovered as a metal-free plastics fraction and subjected to external recovery (EWC 19 12 04). Currently our customers certify that these plastics are recycled to about 75% and are fed 25% to thermal disposal. The main reason for thermal disposal from parts of the plastics fraction is the presence of brominated flame retardants and plastics with PVC.

The input material is made of plastic mixtures from the preparation of WEEE as ABS, PS, PP, HDPE and HIPS. Our partners in the field of plastic recycling are either certified as Entsorgungsfachbetrieb or CENELEC 50625.

The types of plastics separations are carried out by various sink-float pools with different levels of density. In the sink fraction of the density level between 1.25 and 1.3 are the remaining plastics which are fed for thermal disposal. The processors of the plastics annually submit a quota to Aurubis AG, which declares the percentage of recycled and disposed material. These numbers are used by Aurubis to create its own recycling quotas.

D) Utilization of iron silicate sand (slag) as a certified product

Iron and aluminum contents of WEEE fractions are used in the pyrometallurgical process as reducing agent (to replace coke and to reduce carbon dioxide emissions) and as slag forming components. The basic structure of the slag is fayalite ($2\text{FeO} \cdot \text{SiO}_2$). Our iron silicate sand is marketed exclusively as a registered product under REACH for various construction applications, as an abrasive etc.

(REACH-Nº.: 01-2119513228-45-0008).

Exclusive seller of Iron Silicate Sand from Luenen plant is Peute Baustoff GmbH.

E) Recycling of iron and aluminum from WEEE scrap devices

Equipment scrap is basically prepared in our material preparation plant (MV-ZS). In this case we obtain, among others, an iron fraction and a fraction of aluminum. The iron fraction is used in our own processes targeted as a reducing agent and slag forming component, the aluminum fraction is sent to external processing operates for secondary aluminum production. (EWC 19 12 03)

F) Fate and recovery of bromine compounds in PCB composite materials

PCB composite materials are recycled through our KRS pyrometallurgical process (see point A). In those materials contained bromine is discharged through our zinc-containing KRS-oxide, which is also a registered product (REACH- Nº: 01-2119472131-50-0008).

The KRS-oxide is mainly further processed to zinc sulfate. The therein bonded bromine is thereby discharged in significant ratio as bromide solution and recycled.

G) Recycling rates for metal content

We confirm that our process has the following minimum recycling rates for the following metals:

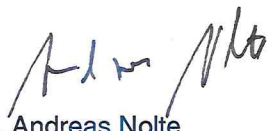
-	copper	>90%	copper cathode
-	silver	>90%	silver (as metal)
-	gold	>90%	gold (as metal)
-	palladium	>90%	as a platinum group metal solution
-	lead	>90%	lead tin alloy, anode mud, KRS-oxide
-	tin	>75%	lead tin alloy, tin
-	nickel	>90%	nickel sulfate
-	antimony	>80%	Lead dross (Sb rich), speiss

Further metal contents like bismuth, selenium and tellurium are further recovered from our precious metals plant.

There are no process-related wastes generated from the recycling processes of Aurubis Luenen. All by-products are circulated back to the processes or sold as registered products.

With best regards

Aurubis AG, Luenen



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Integrated Management Systems



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