



## AMALGAM DISPOSAL

# ECOTRANSFORM

Complete recycling system:

environmentally sound

in conformity with the law



# Your Contribution to the Protection of Our Environment

## The Proper Handling of Amalgam Waste

### Managing hazardous amalgam waste

#### Mercury



The mercury contained in dental amalgam can harmfully react with bacteria and microorganisms when entering the ecosystem. Methylmercury is formed, which causes toxic load for humans and the environment.

#### Dental Amalgam



Amalgam is an alloy consisting approximately half of mercury. In the course of the last 150 years amalgam has become the most commonly used dental filling material. In Europe dentists use 70-90 tons of mercury for dental amalgam fillings per year.

#### Dangers



Without adequate precautions amalgam residues can get into the environment. When entering the ecosystem reactions with bacteria and microorganisms change the mercury contained in the amalgam. Methylmercury is formed, which is highly toxic to humans. It is passed on along the food chain.

Methylmercury is highly fat-soluble and therefore almost completely absorbed by the human body. In the body it can do great harm, causing acute and chronic poisoning. It can furthermore damage the central and peripheral nervous system, as well as harm liver, kidney and the heart muscles. Organic mercury absorbed during pregnancy affects the development of the unborn child and may lead to neurological damages.

#### Solutions



The installation of an amalgam separator is the most important measure to prevent the amalgam entering into the ground water. The competent authorities of many countries all around the world have already recognized this by making the installation of an amalgam separator according to the ISO 11143 standard compulsory for dentists.



In addition to operating an amalgam separator the careful handling and professional disposal of amalgam-containing wastes (e.g. filter sieves, scrap amalgam, amalgam capsules) is absolutely essential.

# DENTAL ECO SERVICE

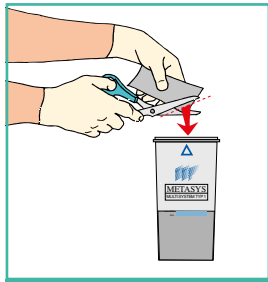
## ECOTRANSFORM – That's How It Works

### Dispose of the following waste types simply and cost-effectively with DENTAL ECO SERVICE:

- amalgam sludge
- amalgam contaminated residues
- filter residues, filter sieves
- amalgam capsules
- scrap amalgam
- extracted teeth

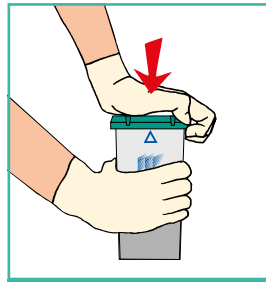
### 5 Steps for the Environment

When buying a METASYS amalgam collection container a complete service package is automatically included. To dispose of your full amalgam collection container, just follow these steps:



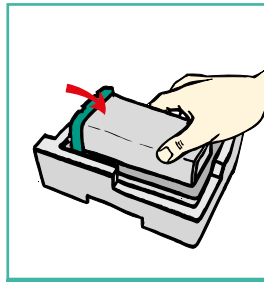
#### 1. DISINFECT

Open the enclosed disinfectant and pour it into the full collection container



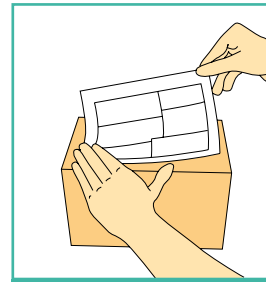
#### 2. CLOSE

Tightly seal the container (to test its tightness turn upside down)



#### 3. PACKAGE

Place the sealed container into the transport packaging (styrofoam shells and cardboard box)



#### 4. PRACTICE ADDRESS

Mark the parcel with your sender information (practice stamp) and the prepared address label



#### 5. SHIPPING / PICK-UP

Send off your container or order the pick-up (depending on the service available in your country)

Specific information on the recycling service in your country can be found online at [www.metasys.com](http://www.metasys.com). In case you have any questions, please do not hesitate to contact us at [info@metasys.com](mailto:info@metasys.com).

### From waste to valuable raw material

All of the collection containers are ultimately sent to our company's headquarter in Rum bei Innsbruck, Austria.

In our own recycling plant we are able to fully process the material and recover mercury and precious metals. It is particularly geared to the specific characteristics of amalgam waste and fulfils all necessary European guidelines.

This way, approx. 1.500 kg of pure mercury can be retrieved from amalgam waste every year and therefore prevented from harming mankind.



After the completed recycling of your container we will send you a certificate of recycling. In some countries we also do the legally required notification with your regional authority.

# DENTAL ECO SERVICE

## DENTAL ECO SERVICE collection services

You can also purchase the following approved waste containers from us:

Item	Order no.
Amalgam collection container MST 1 (international)	55020001
Amalgam collection container COMPACT Dynamic (international)	55020005
Amalgam collection container ECO II (international)	01051007
Amalgam collection container ECO VII D	01071001
Amalgam collection system ECOCENTER (1 collection centre, 2 replacement containers)	40150001
ECOCENTER: 2 replacement containers	40150002
Collection containers: 1 litre, 1.6 litres, 2 litres, 5 litres (differentiated according to type of waste)	on request
Sharps disposal containers with needle remover: 2.5 litres, 5 litres, 11.5 litres	101001 -34 to -36
Disposable collection container with lid: 30 litres	10100101
Collection container: 5 litres	55020002
Canister 20 litres, developer	10100106
Canister 20 litres, fixer	10100107
Amalgam collection containers of other brands (e.g. Dürr, Sirona, Cattani, Srab)	on request

In some countries DENTAL ECO SERVICE GmbH is able to offer the complete disposal of the most common types of dental waste:

- non-infectious wastes
- used x-ray films
- old medication
- mercury, tin and lead foils
- fixer and developer baths
- needles, scalpels, sharps

### Best Management Practice



**Clean your amalgam separator:** Clean and disinfect your amalgam separator and the suction system with GREEN&CLEAN M2 twice a day. This contributes to the perfect functioning of the amalgam separator. Furthermore the cleaning prevents the sedimentation of amalgam particles in the biofilm of the suction tubes.

**The right disinfectant:** Make sure that the disinfectant in use does not corrode the amalgam alloy and thus elute the contained mercury. Make sure that the used product does not harm the amalgam separator's materials.

**Cleaning of the prefilter (filter sieve):** Empty and clean the prefilter at least once a week. Depending on your working method, more frequent emptying might be necessary. Do not

clean filter sieves over the sink. All residues must be collected in the amalgam separator or appropriate collection containers (e.g. ECOCENTER).

**Collect amalgam waste in appropriate containers:** Collection containers must meet set quality criteria (regulations for the transport of hazardous waste). The waste must be labelled and collected in a separate container.

**The amalgam collection container is a medical product:** Its multiple usage affects its sterility and tightness. Due to that the optimal functioning of the amalgam separator can no longer be guaranteed. Therefore we strongly advise against re-use of containers.

**Regular service of the amalgam separator by a service engineer:** In addition to the required 5-year inspection, we strongly recommend to have the device serviced by a trained engineer at least once a year .

**Disposal with a certified waste management company:** Exclusively deal with certified waste management companies.

# DENTAL ECO SERVICE

## ECOTRANSFORM - the Vision

### For the sake of the environment

#### DENTAL ECO SERVICE



Amalgam and other dental wastes must be collected, recycled or disposed of correctly. These tasks are at the heart of DENTAL ECO SERVICE's portfolio.

As a certified "Specialized Waste Management Company" DENTAL ECO SERVICE GmbH proves its knowledge, competence in the field and know-how in handling precarious hazardous material.

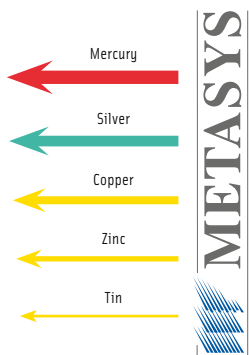
In the course of the company history, an international network of collection points has been set up, which now comprises of more than 24 countries world-wide. In the in-house recycling plant several tons of mercury are recovered every year.

### ECOTRANSFORM

#### Cycle - Amalgam



Amalgam separation and collection of the amalgam residues in the dental practice



Recycled raw materials go back to the industry

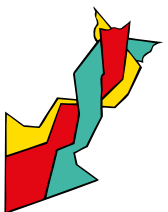
Full container from dentist to the Collection Point



Amalgam waste is recycled at the recovery facility



Transport from ECOTRANSFORM Collection Point to recycling plant



# METASYS ... makes the difference!

**Amalgam separation technologies**

**Dry and wet suction systems**

**Compressors**

**Water decontamination**

**Automated hygiene systems**

**Hygiene and disinfection**

**Amalgam recycling**

METASYS has established itself worldwide as a producer of high quality dental products.

Main part of the corporate identity is the high sensibility for environmental problems which can be noticed in all our products and services. Our high-grade technologies protect our water reserves from contamination through mercury and dangerous chemicals as well help avoid unnecessary drinking water waste.

Especially with amalgam separation, METASYS still sets new standards. METASYS is still known as one of the leading companies concerning amalgam separating technologies.

To meet the demands of both customers and the market, METASYS meanwhile offers a wide range of products around dental office equipment: suction systems, compressors, hygiene systems, water decontamination systems and a wide range of disinfectants.

With ECOTRANSFORM, METASYS offers also a complete recycling system for amalgam. A special amalgam recycling plant processes dental amalgam waste according to the law.



## **METASYS Medizintechnik GmbH**

**Florianstraße 3, 6063 Rum bei Innsbruck, Austria**

**Phone: +43 512 205420 - Fax: +43 512 205420 7**

**www.metasys.com - info@metasys.com**

### **GERMANY**

**METASYS Medizintechnik GmbH**

**Ahornstraße 19**

**85614 Kirchseeon**

**Phone: +49 2236 37 42 42**

### **FRANCE**

**METASYS France S.a.r.l.**

**9, bd E. Michelet**

**69008 Lyon**

**Phone: +33 4 37 90 22 15**

### **ITALY**

**DENTAL ECO SERVICE ITALIA S.R.L.**

**Florianstraße 3**

**6063 Rum bei Innsbruck**

**Phone: +39 045 981 4477**



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