# Classification, transport and treatment of biologically contaminated solid waste in BE

The waste

contains/

consists of

biological

materials?

**Does the** 

waste contain

Cat A

infectious

materials?

Doesthe

waste contain

Cat B

infectious

materials?

Is the waste

medical

waste? (4)

Does the

waste contain

viable GMO

(6) and or

plant pathogen/pest



Handling Solid Biological Waste

Labelling/

packaging

UN3291

/LP621

EWC: haz

UN2814

EWC: haz

UN3291

/LP621

EWC: haz

UN2900

EWC: haz

UN3291

/LP621

EWC: haz

UN3291

/LP621

EWC: haz

required

HP: 9

P621/IBC620

No UN labelling

No UN labelling

required

UN 3245

EWC: haz

HP: 14

required

P904/IBC08

No UN labelling

No UN labelling

required

HP: 9

P621/IBC620

HP: 9

P620

HP: 9

P621/IBC620

3

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HP: 9

P620

HP: 9

P621/IBC620

**Treatment** 

Controlled

**High Temperature** 

Incineration (10)

Controlled

High Temperature

Incineration (10)

Incineration in a

grate oven

Case-by-case (9)

Controlled

High Temperature

Incineration

Case-by-case

(advice: controlled HTI

for quarantine

organisms) (8)

Case-by-case (9)

Delphine S.A. Beeckman<sup>1</sup>, Toon De Kesel<sup>2</sup>, Patrick Rüdelsheim<sup>3</sup>, Geert Torremans<sup>4</sup>

<sup>1</sup> Bayer, Belgium; <sup>2</sup> Febris Biorisk Consult, Belgium; <sup>3</sup> Perseus, Belgium; <sup>4</sup> Indaver, Belgium

## in the framework of the Waste Task Force of the Belgian Biosafety Professionals

Infectious to

humans (2)

Remark: For waste containing

organisms of risk group 3 and 4:

Inactivation on site is mandatory

Is it bio-

hazardous

medical

waste? (5)

Properly

inactivated on

Doesthe

waste contain

viable GMO

### Introduction

The environmentally sustainable, safe and legally compliant treatment of biologically contaminated waste requires a correct classification of this waste based on requirements set out by different legislations. Due to the multitude of these different legal frameworks, it is for the user not always clear how to classify, transport and treat such waste, thereby taking into account the biological hazards.

## Types of legislation identified:

- Waste Framework Dir. 2008/98/EC & regional translation
- European List of Waste Decision 2014/955/EC
- Contained use legislation Dir. 2009/41/EC & regional translation

Classification/treatment only based on the biological hazards. Other hazards may

affect the waste treatment process and should be taken into account for classification.

Focus: contained use facilities (R&D, diagnostics), hospitals, pharmaceutical production

Properly

site?

Properly

inactivated on

site?

Properly

inactivated on

site?

Hazardous Medical

Waste

Non-Hazardous

**Medical Waste** 

**GMO** 

Plant pathogen

inactivated on

- Worker protection Dir. 2000/54/EC & regional translation
- Quarantine organisms Dir. 2000/29/EC & 2008/61/EC
- Transport regulations (e.g. ADR) ...

Infectious for

humans or humans

& animals

Infectious only for

Biological substance

Cat. B

Properly

inactivated on

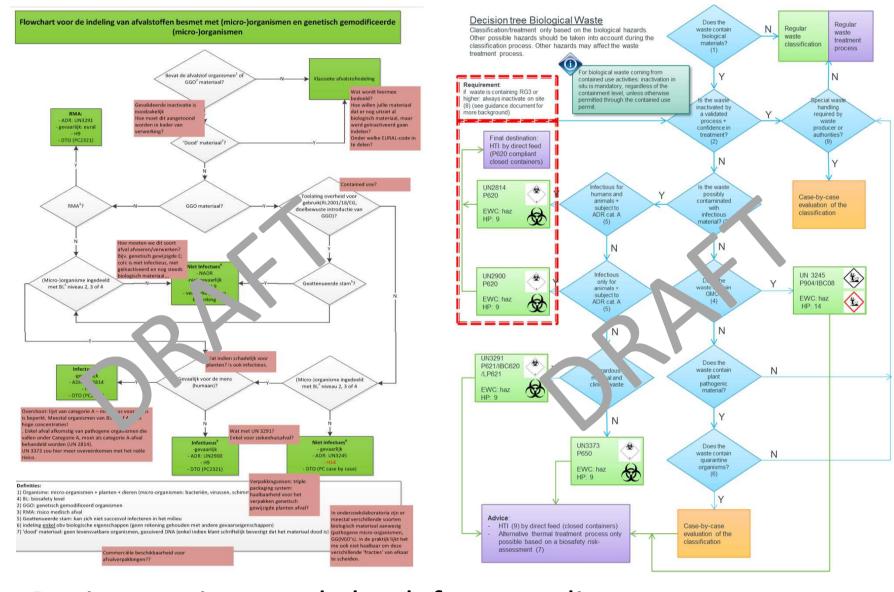
site?

#### **Objective**

- Practical guide for biosafety professionals, laboratory and medical employees
- Correct, safe and compliant classification, packaging, labelling and treatment of different types of biological waste
- In compliance with the Belgian legal framework
- → Flowchart and a guidance note

#### Method

- Identification of relevant legislation see green box
- Federal and regional based on previous work
- Transport regulations
- Multiple flow charts developed, starting from different viewpoints:



- Review options and check for compliance
- Restructure and redevelop
- Test with different types of known biological contaminated solid waste
- Several rounds of validation organize review by competent authorities and scientific experts:
  - Packaging, labelling and transport: Federal Public Service Mobility
  - Inactivation on site: Section Biosafety and Biotechnology (SBB) of the Institute for Public Health (i.e. the technical expert to the competent authorities dealing with contained use of pathogens and GMOs)
  - OVAM the Public Flemish Waste Agency, competent authority dealing with waste
  - FEBEM-FEGE the Belgian federation of waste management companies
- OWD the Public Walloon Waste Agency
- Fine-tuning of flowchart

#### Outcome

Included as an annex to the EURAL European Waste

Catalog Manual of OVAM

Furopese afvalstoffenlijst
EURAL Handleiding

#### **Future steps**

■ The flowchart will also be submitted to the BIM (the Brussels Waste Agency) for their input.

# **Belgian Biosafety Professionals**

The Belgian Section of EBSA

www.ebsaweb.eu/bbp

bbp@ebsaweb.eu

**TF Waste**: http://www.ebsaweb.eu/bbp-waste-task-force

A guidance note with reference to the relevant legislative texts and help to answer the questions mentioned in the flow chart is available, but not shown on this poster.

Contact: delphine.beeckman@bayer.com