

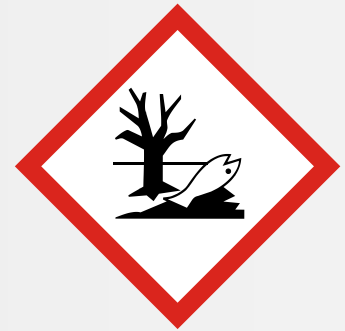
# How to send dangerous goods?

Dangerous goods instruction

25<sup>th</sup> March 2019

# Hazardous substances - Definition

In Germany the so called Gefahrstoffverordnung (GefStoffV) regulates which substances or preparations are hazardous substances



# Dangerous goods - Definition

If you would like to **transport** a hazardous substance, one has to check whether the hazardous substance becomes a dangerous good according to the classification rules of the different carriers.



# Hazardous substance law - Dangerous good regulations

## Hazardous substance law

= Handling law

## Dangerous goods regulations

= regulative law

### Intention: Protection

- of humans,
- of employees/  
consumers
- of environment

### During

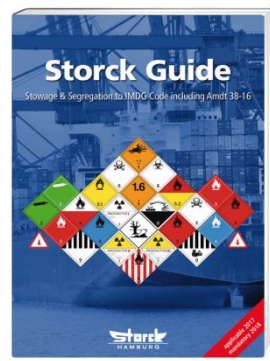
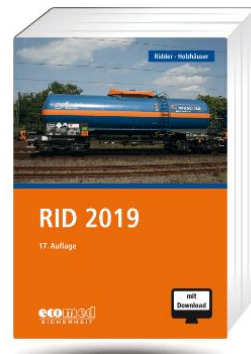
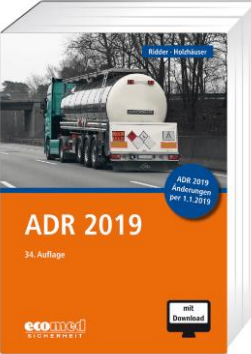
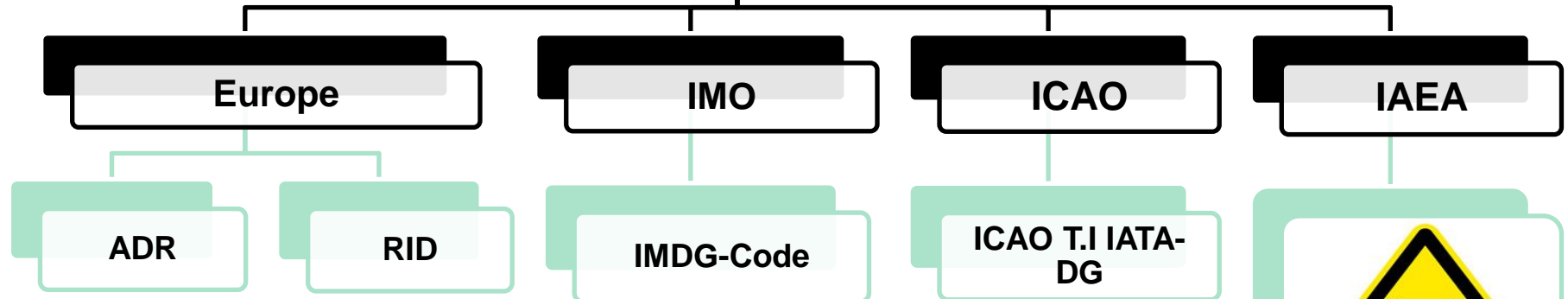
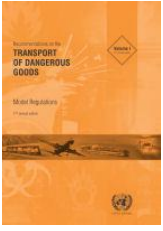
- handling
- bottling/  
transferring
- Packing/storing

### During

- **Transportation**
- **Placing of goods  
for transportation**

# Hazardous substances – Legal regulations

**UN-Suggestion  
„Orange Book“**



And sometimes...



Quelle: Tania Hengmuth, Gefahrgutbeauftragte der MPG

# Criteria for dangerous goods

Whether or not the criteria of the definition "dangerous goods" apply to a substance is determined by a UN expert committee.

















If the criteria are met

- the classification, the identification (UN number),
- the packaging
- the labelling (dangerous goods labels)

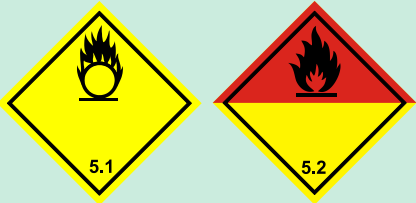
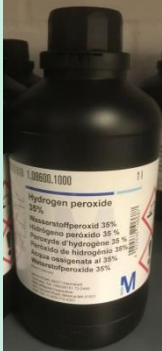
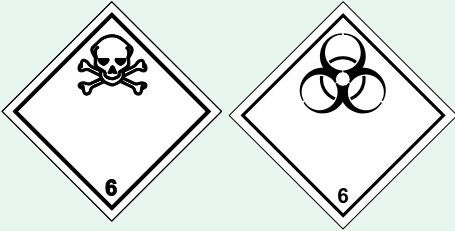







follow strict regulations.

This means that special provisions apply to its carriage, which may be different for each mode of transport.

# Dangerous goods classes


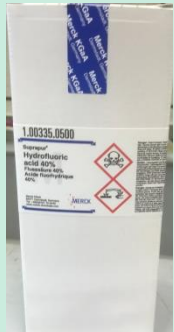
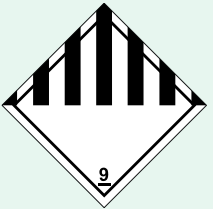
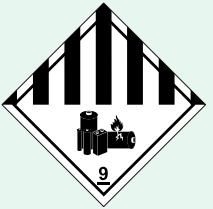




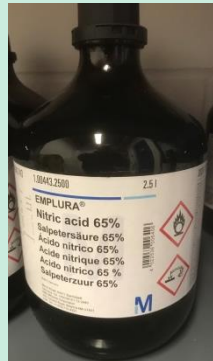
Dangerous Goods classes		Examples	
<p>Class 1</p> 	<p>Explosive substances and articles</p>	 <p>Picric acid with less than 30 mass -% water</p>	 <p>Detonators</p>
<p>Class 2</p>   	<p>Gases</p>	 <p>Helium, compressed or cryogenic</p>	 <p>Gas cartridge</p>  <p>Aerosols</p>
<p>Class 3</p> 	<p>Flammable liquids</p>	 <p>Acetone</p>	 <p>Gasoline</p>
<p>Class 4</p>   	<p>Flammable solids</p>	 <p>Oil-bearing cleaning cloth</p>	<p>Zinc powder</p>

# Dangerous goods classes

Dangerous Goods classes	Examples		
<p>Class 5</p> 	<p>Igniting, oxidizing substances</p>	 <p>Hydrogen peroxide</p>	<p>Piranha Solution</p>
<p>Class 6</p> 	<p>Toxic substances, infectious substances</p>	<p>Arsenic</p>  <p>Halogenated solvents</p> 	<p>Clinical waste</p>  <p>Patient samples (e.g. blood samples)</p> 
<p>Class 7</p> 	<p>Radioactive substances</p>	<p>Excepted packages</p> 	<p>Radioactive substances type A package</p> 



# Dangerous goods classes

Dangerous Goods classes		Examples	
<p>Class 8</p> 	<p>Corrosive substances</p>		<p>Hydrofluoric acid</p>
<p>Class 9</p>  	<p>Miscellaneous dangerous substances and articles</p>		<p>Lithium batteries</p>
		 <p>Quelle: Wikipedia</p>	<p>Genetic altered organisms</p>
			<p>Dry ice</p>
			<p>Used package, empty, uncleaned</p>
			<p>Nitric acid</p>

# Hazardous substances – Dangerous goods

- Hazardous substance can be easily identified by the hazard pictograms on the chemical bottles
- Not each hazardous substance is a dangerous good as well (e.g. cobalt powder)
- Not each dangerous good is a hazardous substance as well (e.g. lithium batteries)
- It'll become especially problematic if you would like to ship samples which you have created at the institute
- The researcher can't decide on its own whether a chemical will become a dangerous good or not according transportation regulations
- Mr Konrad or Mr Wied will decide whether a substance is a dangerous good or not and will classify it correctly (Class 1-9)

Note:

If a substance or article is listed as a **DANGEROUS GOOD**, it is a dangerous good **regardless** of the quantity. Even one  $\mu\text{g}$  or  $\mu\text{l}$  of it is still a dangerous good.

# Shipping procedure

Inform Mr Konrad (2B12) or Mr Wied (3C00) about the shipment of chemicals as soon as possible

They need to know:

- Substance name and molecular formula
- Amount of the substance
- Possible hazards you might know
- Complete address of the consignee with phone number and email

Mr Konrad or Mr Wied will decide whether a substance is a dangerous good or not

# Shipping procedure inside EU

If the substance is a dangerous good:

- you have to sign a [form](#) in which you confirm the correctness of your specifications
- Mr Konrad or Mr Wied will then declare, pack and label the package and send it to the consignee

If the substance isn't a dangerous good:

- you and Mr Konrad or Mr Wied have to sign a [form](#) which declares that this substance isn't a dangerous good.
- With this form you can go to the goods issuing department and they will send the package for you

**In no case bring chemical substances directly to the goods issuing department without an approval of Mr Konrad or Mr Wied**

# Shipping procedure outside EU

If the substance is a dangerous good in addition to EU shipment:

- you have to contact Mrs Schöpfer concerning tax regulations
- after a clarification from Mrs Schöpfer, Mr Konrad or Mr Wied will then send it to the consignee

If the substance isn't a dangerous good in addition to EU shipment:

- you have to contact Mrs Schöpfer concerning tax regulations
- After a clarification from Mrs Schöpfer the goods issuing department will then send it to the consignee

**In no case bring chemical substances directly to the goods issuing department without an approval of Mrs Schöpfer if you would like to send them outside the EU**

# How to send Dangerous goods? – Questions?

