

Coopération franco- allemande pour le Rhin

Franco-German cooperation for the Rhine



Dipl. Chem. Mario König
Brandassessor



Ing. Alex Roth
Lt. Colonel

Tasks during an accidental pollution on inland water

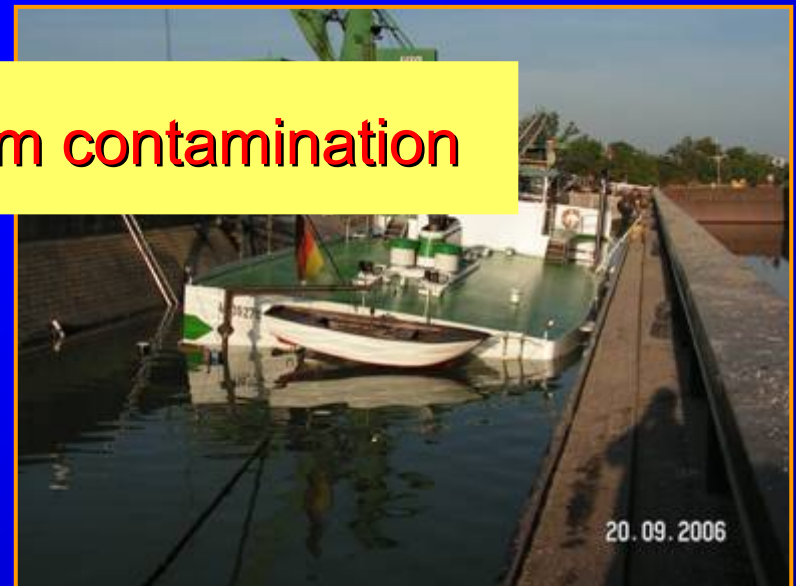


Prevent nature from contamination

contractors

Fire brigade

Environmental administration



Fire brigade

(5 - 10 min)

- first actions to prevent further damage.
- Stop release,
- minimize dissemination



Current!



Hierarchy of environmental administration in Germany

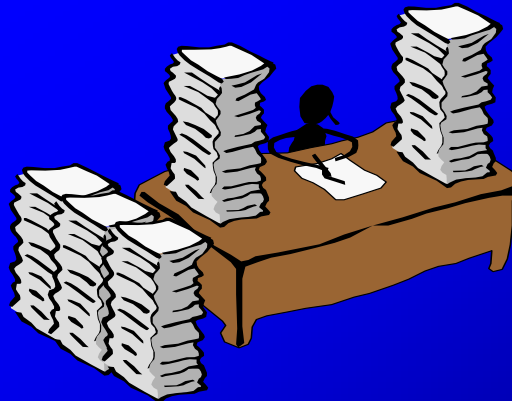
- Federal level  Umweltbundesamt / Federal Environmental Agency
- States level    ...
Landesumweltamt/ States Environmental Agency
- County level  Umweltamt / Environmental Agency

Environmental agency

(community level)

(30 -120 min)

- organize recreation of environment
- administrate the disaster
- licensing requirements and orders to the operating company



Commercial contractor (hours)

- clean environment
- waste disposal of chemicals



What's to be done if the situation is more complex?

Example: substance is unknown



one possibility, supported by the
federal government
(Ministry of the Interior):

The **A**nalytical **T**ask **F**orce

Task Forces

- B-Task Force for exploration of biological risks (planned)
- NR-Task Force for exploration of nuclear and radiological cases
- C-Task Forces (Analytical Task Force, ATF) for exploration of chemical risks

topics

organisation	
equipment	
operations	

organisation

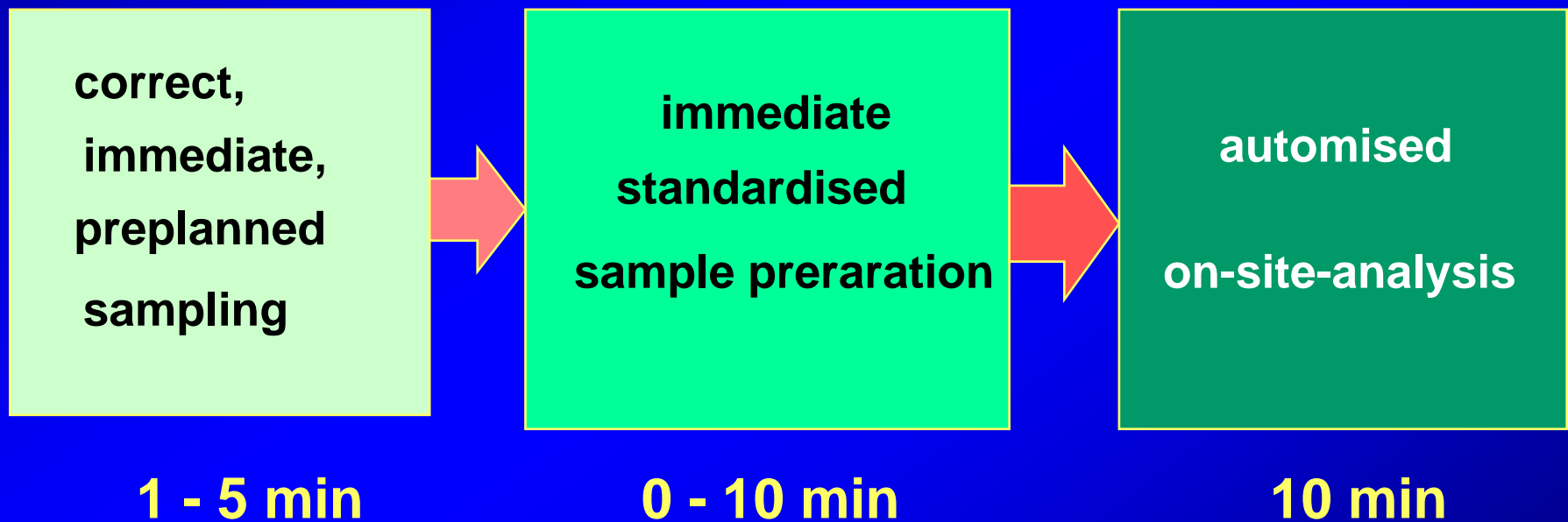
teams

- promotion of institutions with analytical equipment and sufficient experience at:
 - Hamburg Fire Brigade (24 h duty)
 - Mannheim Fire Brigade (24 h duty)
 - Berlin Criminal Investigation Police (24 h duty)
 - IdF Heyrothsberge

tasks of environmental analytics

- exploration of
 - soil pollution
 - water pollution
 - air pollution
- identification of unknown substances
- special tasks for other public institutions / official aid

facts of the on-site-analysis



operations

- **exploration** (ATF)
 - detection, identification and semiquantitative analysis of unknown substances
 - exploration of the dimension of danger incl. long range detection
 - sampling for later examinations
- **advice** (expert network)
 - operational tactics
 - medical and environmental facts

investigation team (rapid action)



UD Op.1



GC/MS



Op.2



GW-Mess

helicopter transport



reinforcement team (from home)



NBC-battalion



NBC recon. vehicle



BF



KdoW

area of responsibility

- large or complicate incidents in the operation area within in a distance of 200-250 km (air transport).
- out of area operations are planned for the future.

locations of the Analytical Task Force



- actual: 4 sites of the Analytical Task Force
- planned: six sites

cooperation with external fire brigades

Ludwigshafen

Landau

Neustadt

Frankenthal

Annweiler

Mutterstadt

Speyer

Philippsburg

Lkr. Karlsruhe

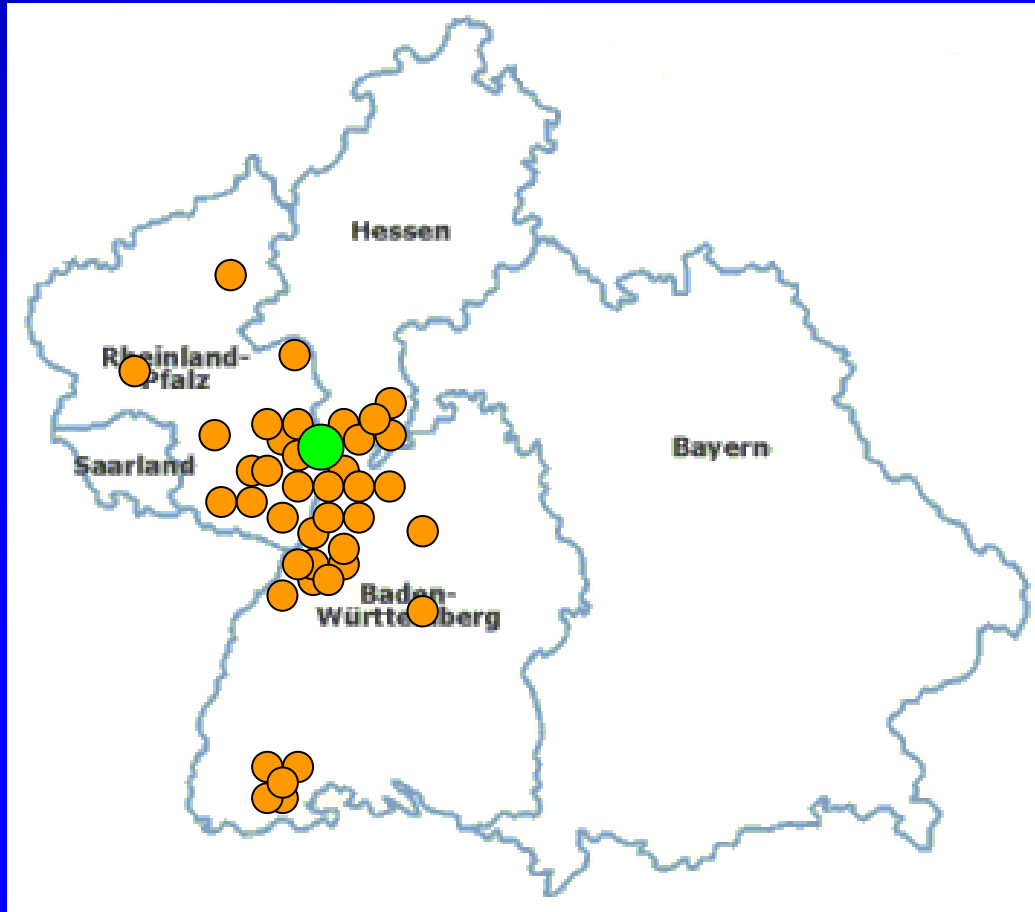
Lkr. Alzey-Worms

Lkr. Ludwigshafen

LFKS Koblenz

WF Freudenberg

Weinheim



Heidelberg

Wiesloch

Walldorf

Ladenburg

Baden-Baden

Mosbach

Laudenbach

Lkr. Waldshut

Donnersbergkreis

US F&ESD MA

Heppenheim

Bürstadt

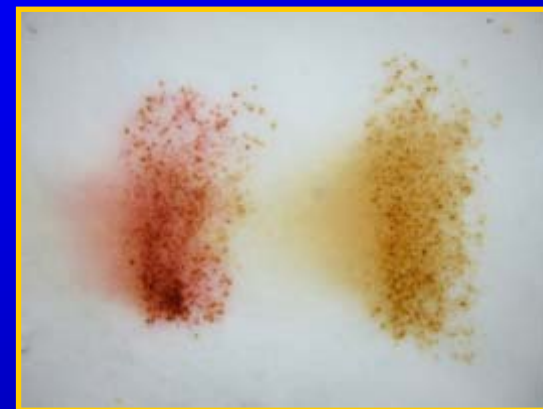
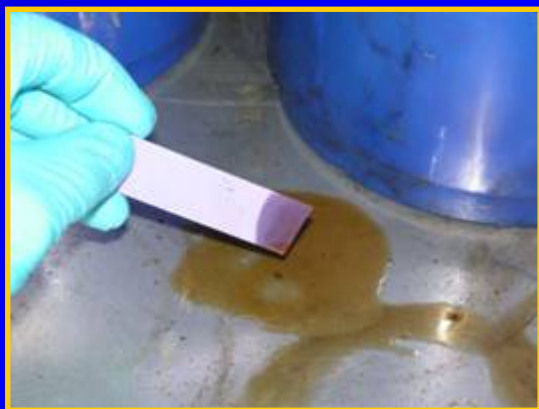
Stuttgart

equipment

basic equipment



oil-detection paper
CWA-detection paper
water detection paste
pH-indicator
detection powder



special equipment



test tubes
ex-meter
elektrochem. devices
PID
water test kits



radiological equipment

n-detector
 γ -spectrometer



dosemeter incl.
NBR detector



contamination monitors

high-tech equipment

(by local administration)



GC/MS

IR-spectrometer

IMS



high-tech equipment

(by federal government)

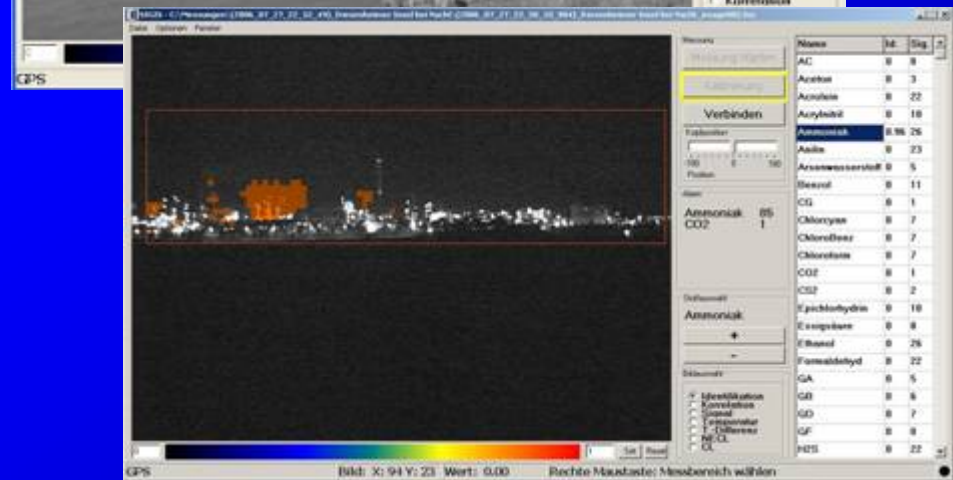


gas detector array
GDA-2



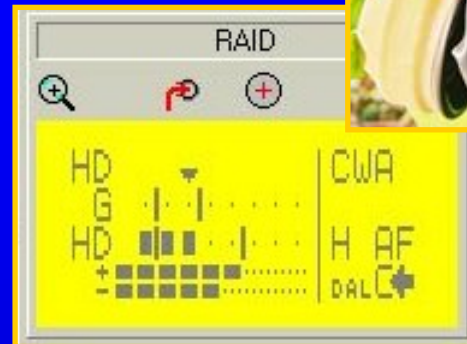
long-range FTIR
SIGIS II

detection: SIGIS

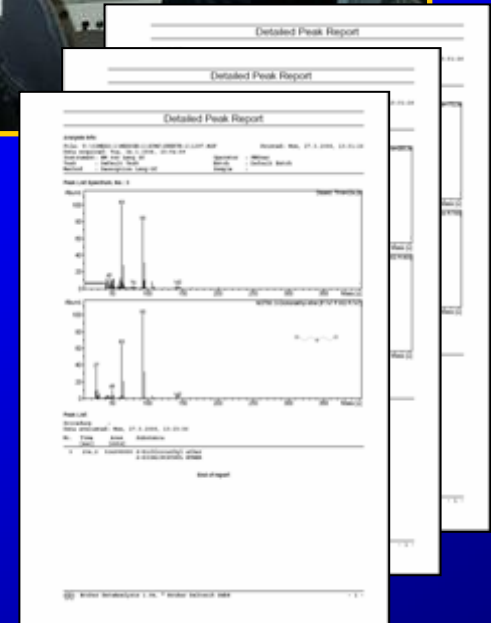
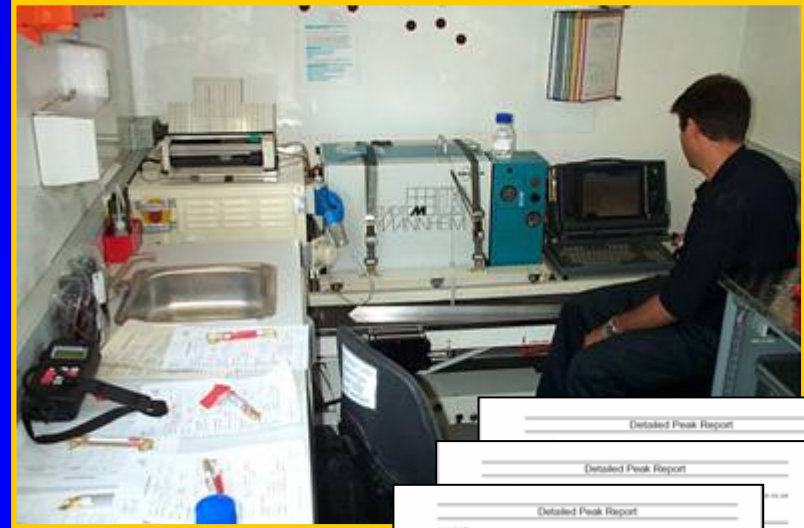
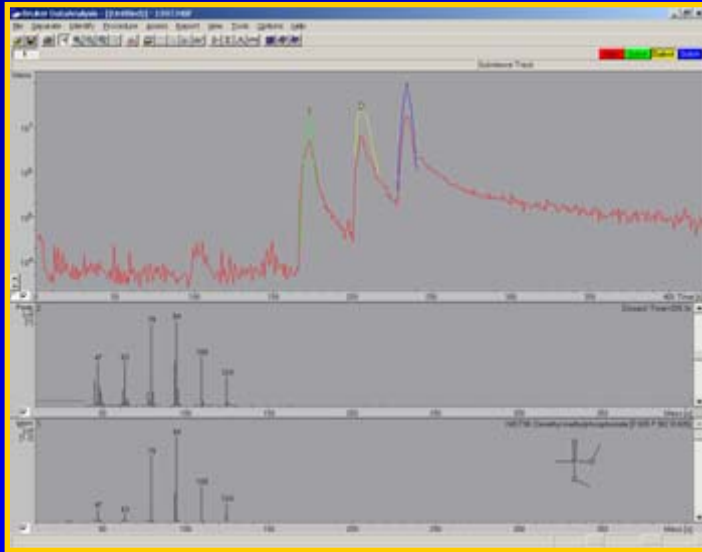


localisation:

measuring & detecting with GDA-2, IMS, PID



identification: GC/MS



GW-Mess



NBC reconnaissance vehicle (ErkKW)



N(B)C analytical
devices' container



sampling and
protective equipment



sampling

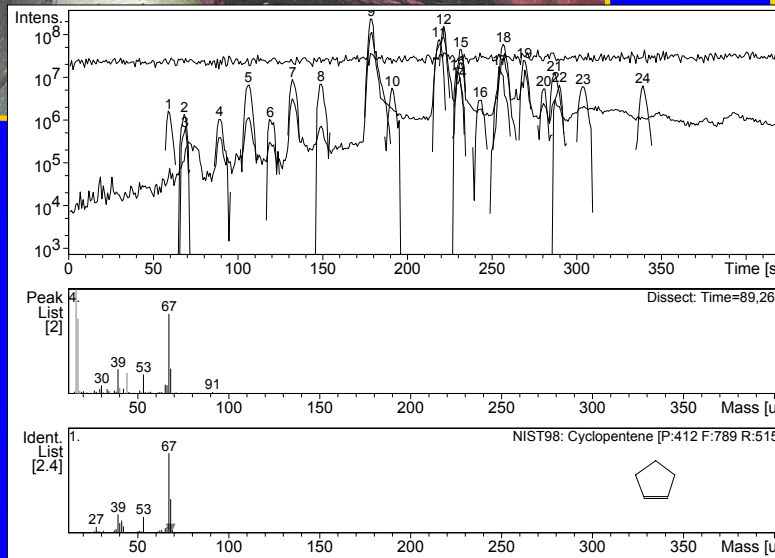
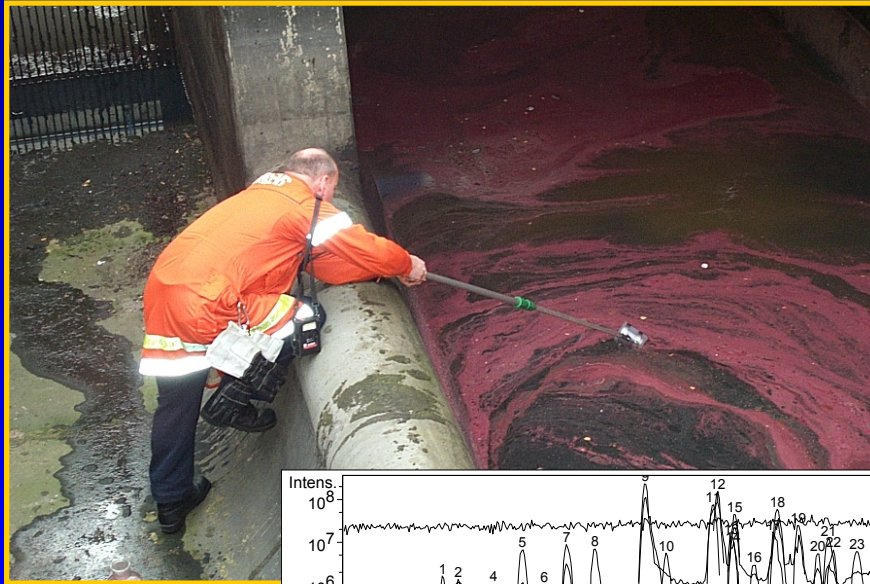


operations

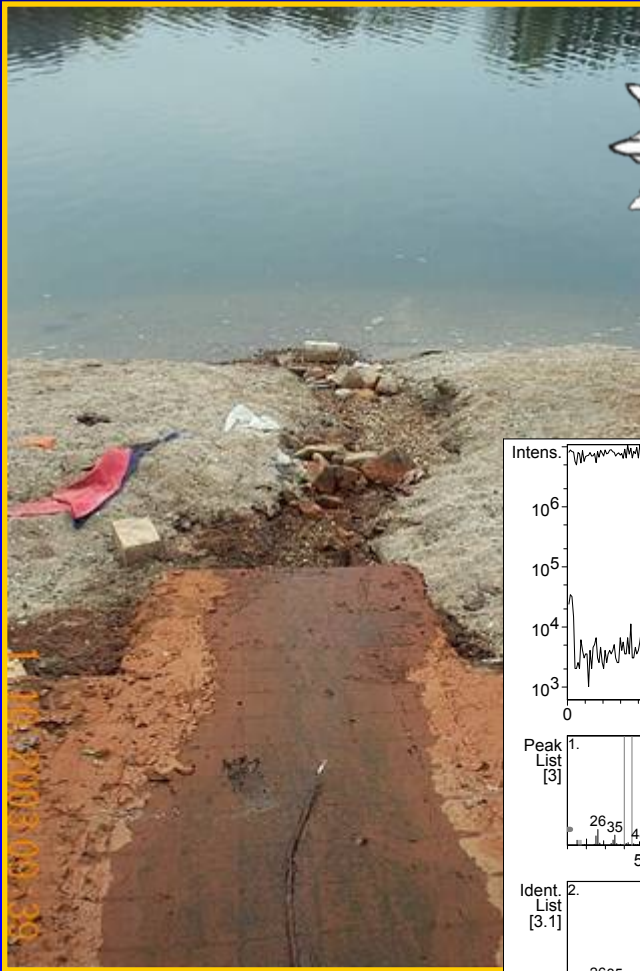
sewage system; bad smell



sewage system: illegal discharge



illegal discharge?



CHESIS 10.0

CAS 75-35-4 1,1-Dichlorethen

Sechskriterium: Stoffname = "VINYLDENCHLORID" 1/1 Treffer

Gefunden: Vinylidenchlorid

Auswahlfeld für die gewünschten Informationen zum Stoff

Wähle Trefferstelle

Übersicht

Gefahrensymbole F+ (Hochentzündlich)
Xn (Gesundheitsschädlich)

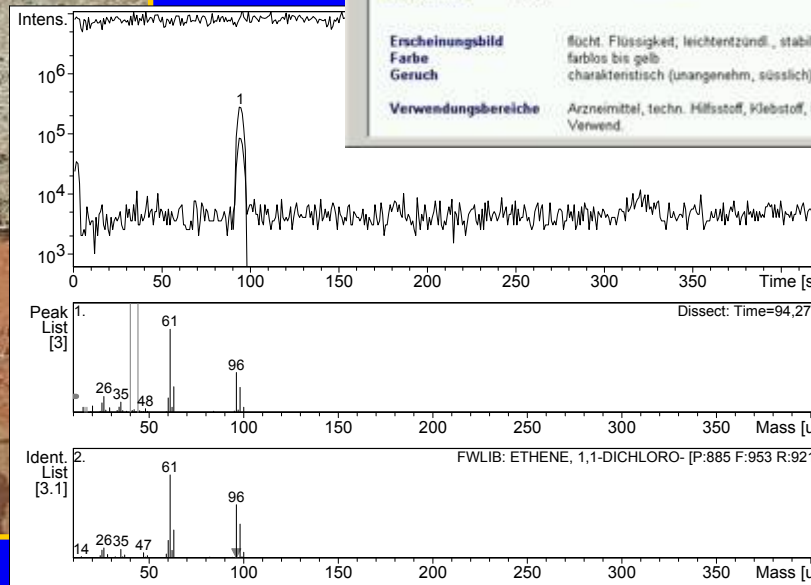
Summenformel C2 H2 Cl2

Hauptname 1,1-Dichlorethen

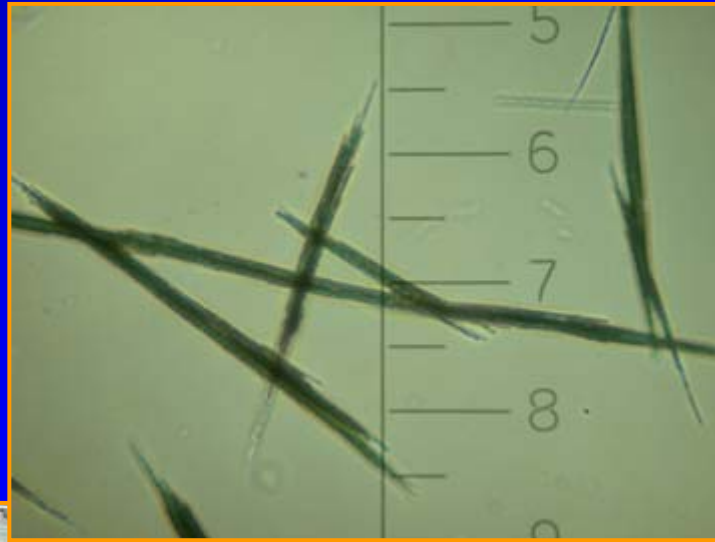
Kemlerzahl 339 **INDEX-Nr.** 602-025-00-8 **CAS Nummer** 75-35-4
UN Nummer 1303 **EWG-Nr.** 200-864-0

Erscheinungsbild flücht. Flüssigkeit, leichtentzündl., stabilisiert
Farbe farblos bis gelb
Geruch charakteristisch (unangenehm, süßlich)

Verwendungsbereiche Arzneimittel, techn. Hilfsstoff, Klebstoff, Lösemittel, Kunststoff, Zwischenprodukt, Industr. Verwend.



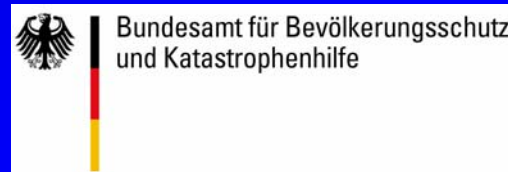
Biological „contamination“



participation in international exercises, EU-Level

EURATECH 2005

Portes-lès-Valence, France



BIOTECT 2006

Jægerspris, Denmark



EUDREX 2004

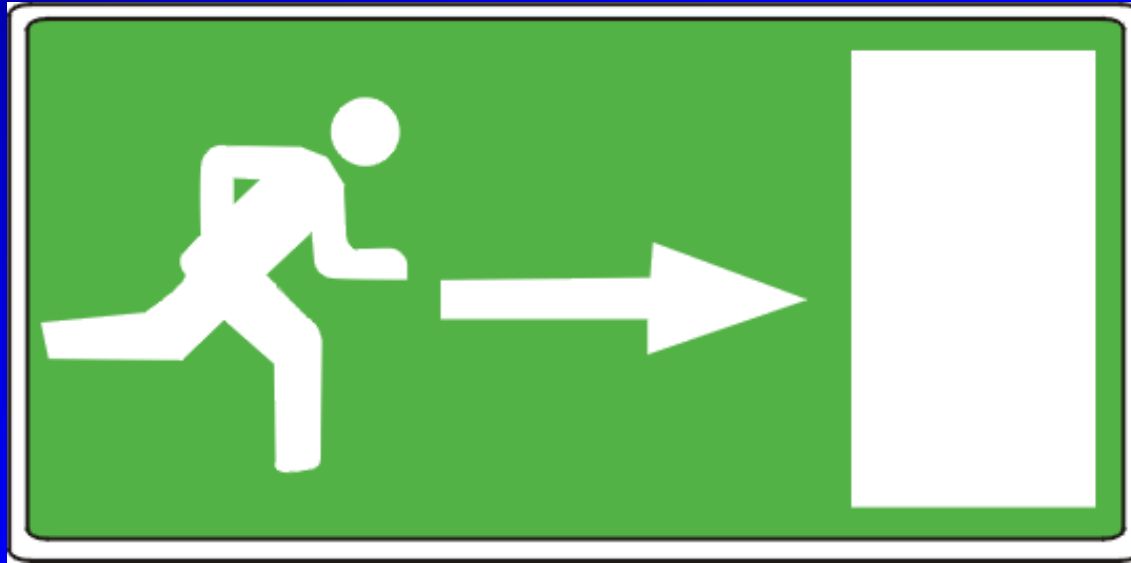
Wiener Neustadt, Austria



field lab



Ende



thank you