

CONTAMINANT COMBAT AND DECONTAMINATION EQUIPMENT



for the correct handling of hazardous materials



The fire brigade is often called in where no one else knows what to do. Particularly, if an incident involving hazardous materials has occurred, expert knowledge and equipment are vital.

Characteristics of hazardous materials

Possible risk potential	<ul style="list-style-type: none">• toxic• caustic• inflammable• etc.
Appearance	<ul style="list-style-type: none">• solid• liquid• gaseous
Most frequent operations	Road, rail or air transport



Foto: LFK NÖ

Inflammable liquids, such as fuels, and caustic substances, such as acids and alkalis, number among the most common hazardous materials. For inflammable liquids, the equipotential bonding (earthing) is of decisive importance, in order to prevent electrostatic charging, while acids and alkalis are governed by the chemical resistance charts.

Contaminants are hazardous substances that are released unintentionally and may cause damage to animals and the environment or may threaten human beings.

Procedure for operations involving contaminants:

- 1) Identify risk (measuring devices)
- 2) Cordon off the danger zone
- 3) Rescue people (observing self-protection requirements)
- 4) Stabilise the situation (collect – seal off – pump out)

3 golden rules

The larger the **distance** from the contaminant, the shorter the **length of stay** in the danger zone and the better the **shielding** (protective clothing) against the respective substance, **the smaller is the harmful effect.**

Danger signs indicate the presence of hazardous substances.



ROSENBAUER Multi-Stage Contaminant Combat Equipment Concept

Hazardous materials are classified into 3 categories according to their risk potentials:

- A** tomic hazards (radioactivity)
- B** iological hazards
- C** hemical hazards



ROSENBAUER has compiled individual solution packages for each of these risk classes, which contain all the required equipment components. Module A includes all the equipment components required for the correct handling of atomic contaminants, Module B those for biological and Module C those for chemical hazards. Furthermore, Module C is comprised of 3 levels, which build on each other.

Risk potential	Atomic hazards	Biological hazards	Chemical hazards
Modul	A	B	C I
			C II
			C III

The packages are structured according to the following scheme:

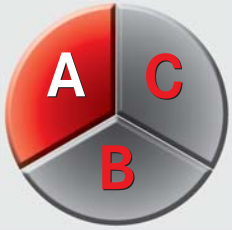
- Blockage material
- Measuring devices
- Protective equipment
- Sealing materials
- Collection containers
- Pumps
- Earthing material
- Electrical material
- Tools
- Hoses
- Other materials

(certain items do not apply for some groups).



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Module A: ATOMIC HAZARD (radioactive substances)



- Main focus: self-protection (measuring devices and protective equipment)
- Useful supplements: Module CI products (e.g. various collection containers)

NOTE: There is no protective suit available that provides protection against ionizing radiation – it is only possible to protect oneself against liquids and dusts contaminated with radiation!

Art. No.	Article/Description
BLOCKAGE MATERIAL	
676310	EUROPE BARRIER TAPE The non-adhesive tape is made of Polyethylene. Each roll is 500 m long and 80 mm wide. Red/white printed stripes on both sides
420007	MARKING SET FOR RADIATION PROTECTION INCIDENT
676250	METAL BARRIER SUPPORT Suitable for barrier rope, Weight: 1.6 kg
676255	BASE PLATE FOR BARRIER SUPPORT Weight: 3.95 kg
908810	SLEDGE HAMMER Weight: 3 kg
676200	MULTI-PURPOSE STAND FOR WARNING SIGNALS Heavy duty design, made of galvanised steel. Suitable for accommodating of warning and prohibition signs of the series mentioned above.
672534	WARNING SIGN "RADIATION HAZARDS" Triangle in European standard design, yellow background, black border. Made of aluminium sheet, ScotchLite coated for high visibility also during night-time. Black pictogram "Radiation Hazards".

MEASUREMENT DEVICES

41135103	ADC SUMMIT WINDWATCH Altitude indication : 0 - 10 000 m (0 - 30 000 ft); Resolution of altitude: 1 m (3 ft); Indication of barometric pressure: hPa or Hg; Resolution of barometric pressure indication: 1 hPa/0,01 in Hg; Update of barometric pressure reading: 1x per minute; Resolution of wind speed: 0,1 m/s; Averaging of wind speed: from 5 to 60 seconds, in steps of 5 seconds; Update of wind speed: every second; Operating range: 0,6 m/s to 40 m/s (90 kms/hour); Accuracy for wind speed: ±4% (wind speed calibration possible); Operation temperature: -20 °C to 50 °C (-4 °F to 122 °F); Accuracy for temperature: ±2% (adjustable); Resolution for temperature: 1 °C (33,8 °F); Casing: High Impact ABS; Water-resistant; Battery type: 3V lithium battery (included); Battery life: approximately 1 year (automatic flat battery warning); Lanyard: included; Dimensions: 10 x 4 x 1,8 cm; Weight: 55 g approx.
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67631000



676200



672534



41135103

MBAT EQUIPMENT

Art. No. Article/Description

MEASUREMENT DEVICES

420035	<p>DOSE RATE METER 6150 AD 2</p> <p>Radiation detector: GM tube ZP 1200; approx. 5500 pulses per 100μR (1μSv); Measuring quantities: Photon equivalent dose rate and photon equivalent dose. Dose rate ranges: Analog 10μR/h to 1000 mR/h; Digital: 1μSv/h to 9,99 mSv/h. Range for max. dose rate: 0,1 mR/h to 999 mR/h; Dose range: 0,1 mR to 9,99 R. Energy response Nominal range of use 60 keV to (built-in GM tube): 1,3 MeV. Dimensions: 130 x 80 x 29 mm; Weight: approx. 400 g</p>
42003502	<p>DOSE RATE METER 6150 AD 6</p>
420029	<p>PROBE CABLE</p> <p>Length: 1.25 m</p>
420066	<p>CONTAMINATION MONITOR 6150 AD-K</p> <p>Radiation detector: GM tube ZP 1200, approx. 5500 pulses/μSv; Measurement quantities: Photon equivalent dose rate and photon equivalent dose; Dose rate ranges: Analog 0,1 μSv/h bis 10 mSv/h, Digital 0,01 μSv/h bis 9,99 mSv/h; Average value of dose rate range: 0,001 μSv/h to 9,999 mSv/h min. 400 pulses. Range for max. dose rate: 0,01 μSv/h bis 9,99 mSv/h; Dose range: 0,05 μSv bis 99,9 mSv; Dose rate alarm threshold: Adjustable to 0/7,5/25/100 μSv/h, 2/3 mSv/h or free programmable; Dose alarm threshold: Adjustable to 0/1/2 mSv or free programmable; Energy response: Nominal range of use 60 keV to 1,3 MeV; PTB qualification symbol: 23.03.90.02</p>
420067	<p>TELETECTOR PROBE 6150 AD-T</p> <p>The Teletector 6150 AD-T consists of a Dose Rate Meter 6150 AD and the Teletector probe 6150 AD-T. The Dose Rate Meter is positioned on the probe housing, clamped tight with a knurled screw, and connected via the probe jack with the cable of the Teletector probe.</p> <p>The Teletector probe can be telescoped out to a total length of 4.25 m. The forward end of the telescoping section incorporates two GM tubes: the end window GM tube ZP 1400 for detecting beta radiation, and the gamma GM tube ZP 1300. Both tubes can measure over the very wide dose rate measuring range of 0.1 μSv/h to 10 Sv/h, with switchover between the GM tubes taking place automatically.</p> <p>Energy response: 65 keV - 3 MeV</p>
420069	<p>CARRYING CASE FOR 6150 AD-K AND ACCESSORIES</p> <p>Made of plastic</p>
420033	<p>ALPHA-BETA-GAMMA PROBE MODEL 6150 AD-17</p> <p>Measuring Range Analog: 0.1 1/s – 10 k 1/s; Measuring Range Digital: 0.01 1/s – 9.99k 1/s</p>



420035



420066



420067



420033

CONTAMINANT CO

Module A: ATOMIC HAZARD (radioactive substances)

Art. No. Article/Description

MEASUREMENT DEVICES

420089 ELECTRONIC DOSIMETER EDW 150
 With alarm functions. Small and handy, simple operation for measuring gamma radiation and X-rays digital dose indication on LC-display (7 digits). Dose measuring range from 1 μ Sv up to 10 Sv in steps of 1 μ Sv; reliable measurement of radiation in front of the user's body (detection of a solid angle of 180°), 4 selectable dose alarm thresholds, 2 selectable dose rate alarm thresholds, dose rate range up to 1,5 Sv/h. acoustic single-pulse indication. Battery life approx. 1 year (continuous operation). Electronic test function and self-monitoring. High impact metallized plastic housing, protection class IP 67.

420062 ATTRIBUTES SAMPLING DEVICE
 consisting of:
 partition case; 10 screw cap bottle 500 mm, \varnothing 90 mm; 10 synthetic vessel with screw cap, 11 cm high, \varnothing 90 mm; spittle; grass scissor; test bags 100 x 270 mm; 24 labels; throw-away pencils.

41137005 UNIVERSAL INDICATOR TEST STICK
 Ph 0 - 14

PROTECTIVE EQUIPMENT

4200001 ISOTEMP RADIATION PROTECTION SUIT KONTAC 200/A
 Made of Nomex III, 265 g/m², permanently antistatic through BEKINOX steel fibre, oil- and waterrepellent fabric, flame-retardant, colour: white. Combination with tight hood and rubber face collar, concealed zip fasteners on sleeves, trouser-legs and back. Registration No: KSA/FW/GSF 028809, weight: 1.1 kg.

4200011 ISOTEMP RADIATION PROTECTION HOOD KONTAC 200/H
 with tight rubber face collar and long overlapping chest and shoulder protection. Registration No.: KSA/FW/GSF 028810. Weight: 0.1 kg.

142501 PETROBEN CHEMICAL PROTECTION GLOVES
 350 mm long

143240 CHEMICAL RESISTANT SAFETY BOOTS "PUROFORT"
 Colour green

410709 NUFAB COVERALL AGAINST SPRAY AND SPLASH HAZARDS, SIZE XL
 Designed specifically for nuclear power operations and decontamination activities to keep potentially radioactive particles and liquids off the body. Colour: Light Yellow. Garment Description and Features: Coverall in Superb™ pattern, zipper front with storm flap, attached hood. Elastic at wrists and ankles. Set sleeve design with underarm gussets (extra fabric) to allow greater movement. Unique design zips over neck to above chin, eliminating exposed neck areas. A patented sealed seam produced when materials are lapped and thermally welded. There are no fillers, thread or needle holes.

41064150 CHEM-TAPE FOR CHEMICAL PROTECTION
 For use when mid to high range chemical protection is needed



MBAT EQUIPMENT

Art. No. Article/Description

MEASUREMENT DEVICES

41064150

- For moderate to severe chemical resistance
- Strong and durable, but can be torn easily for quick application
- Rolls are 2" (5 cm) wide x 60 yds (55 meters) long
- Colour Yellow

For use with protective clothing when extra protection is needed between interfaces and closures - i.e. gloves, zipper, ankles/boots, etc.

401300 **BREATHING MASK PANORAMA NOVA RA-EPDM**
 Only suitable in areas where the contaminated air contains at least 20% of oxygen. Made of soft neoprene which improves comfort and facial seal. Comes with an inner mask with non-return valves as well as separate inhalation and exhalation channels. Features a 5 strap adjustable head harness. Visor, made of impact and scratch resistant polycarbonate, offers a wide field of vision. High efficiency speech membrane allows for improved communication while wearing the face piece. Protects against a concentration of contamination to a maximum of 0.5 % by volume. Suitable for use with a screw-in type filter cartridge with knuckle thread as per DIN 3182, but comes without a filter cartridge

404917 **PARTICLE FILTER 100P3**

40492302 **MULTIPURPOSE FILTER 103A2B2E2K2P3** with connection in accordance with EN 148-1

OTHER MATERIALS

420005 **HANDLING TONGS**
 105 cm long, for handling radioactive materials. Weight: 0.25 kg

919860 **3M POWERSORB CHEMICAL SPILL ABSORBENT**

420059 **DRUM FOR RADIOACTIVE WASTE**
 Contents 200 l, made of sheet steel with reinforcing rings, sandblast finished, inside and outside varnished (RAL 1004). Lid with spacer bolt closing and Buna variety sealing. The drum carries the sign "radioactive waste" as well as the warning sign. One polyethylene bag is included. Net weight of the drum: 60 kg

420060 **POLYETHYLENE BAGS FOR ORD.NR. 420059 (25 Pcs.)**

420061 **TRANSPORT CONTAINER**
 Dimensions: 133 mm (outer diameter), 20 mm (internal diameter)
 Total height: 235 mm (clear height: 9 + 7 mm)
 Wall thickness: Pb equiv. Co60: 60 mm
 Weight: approx. 20,4 kg
 Container: incl. handle, steel covered, orange colour

904310 **COLLECTING TUBE**
 Dimensions: 635 x 380 x 240 mm, 36 l

904311 **COVER FOR COLLECTING TUBE**



CONTAMINANT CO

Module A: ATOMIC HAZARD (radioactive substances)

Art. No.	Article/Description
OTHER MATERIALS	
937000	SPILLBAG 100 COLLECTION RESERVOIRS For catching larger quantities of dangerous liquids in leakages or accidents. Capacity: 100 l. Material: PE 0.2 mm
302920	ELECTRONIC HAND SEARCHLIGHT CEAG SEB 8 L This searchlight is explosion-proof as per ATEX 2195 II 2G, EEx eib II CT 4, for zones 1 and 2. Protection class IP 65. It is fitted with a set of Ni-Cd sealed rechargeable batteries, which are leak-proof. Capacity: 7 A/h (4.8 Volt). Comes with a 5.5 Watt halogen head lamp and a 1.5 Watt secondary lamp. Working time of head lamp: 6.5 hours. The searchlight is provided with an emergency flashing device. Charging system for 220 Volt one phase current, and 12 - 24 Volt DC complete with cables, is incorporated. It is therefore possible to recharge the searchlight either in the fire station, or in a fire truck by the vehicle's battery. Complete with a set of filters (clear diffuser, red and orange).



302920

Overview matrix of Module A:

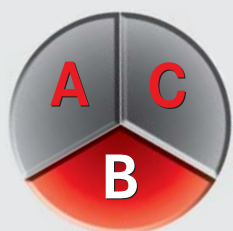
To provide a better overview, the following matrix shows a summary of all the products required for atomic hazard control. Furthermore, the matrix includes information concerning the quantity of items for each product, which we recommend for the optimum equipping of a fire brigade unit.

Ord. No.	Designation	r.q.*	Ord. No.	Designation	r.q.*
Blockage Material			Protective Equipment		
676310	Barrier tape	3	4200001	Radiation protection suit KONTAC	6
420007	Marking set	1	4200011	Radiation protection hood KONTAC	6
676250	Metal barrier support	8	142501	Chemical protection gloves	6
676255	Base plate	8	143240	Safety boots	6
908810	Sledge hammer	1	410709	NuFab Coverall	6
676200	Multi purpose stand	2	41064150	Chem-Tape	1
672534	Warning sing	2	401300	ND-breathing mask	6
Measurement devices			404917	Particle filter	12
41135101	Windwatch	1	40492302	Multi purpose filter	6
420035	Dose rate meter 6150 AD 2	1	Other Materials		
42002502	Dose rate meter 6150 AD 6	1	420005	Handling tongs	1
420029	Probe cable	1	919860	Chemical spill absorbent	1
420066	Contamination monitor	1	420059	Drum for radioactive waste	1
420067	Teletector probe	1	420060	Polyethylene bags	1
420069	Carrying case	1	420061	Transport container	1
420033	Alpha-Beta-Gamma probe	1	904310	Collecting tube	1
420089	Electronic dosimeter	1	904311	Cover for collecting tube	1
420062	Sampling device case	1	937000	Spillbag collection reservoirs	1
41137005	Universal indicator test stick	1	302920	Electronic hand searchlight	2

* recommended quantity

MBAT EQUIPMENT

Module B: BIOLOGICAL HAZARD



- Focus: protective equipment
- Useful supplements: module CI products (e.g. sealants)

The detection of biological hazards is particularly difficult. In many cases, laboratory analyses are required.

Art. No.	Article/Description
BLOCKAGE MATERIAL	
676310	EUROPE BARRIER TAPE See module A, page 4
676250	METAL BARRIER SUPPORT See module A, page 4
676255	BASE PLATE FOR BARRIER SUPPORT See module A, page 4
908810	SLEDGE HAMMER See module A, page 4
676200	MULTI-PURPOSE STAND FOR WARNING SIGNALS See module A, page 4
D03751	SIGN "WARNING OF BIO HAZARDOUS" ALU 400 mm L
MEASURING DEVICES	
41135103	ADC SUMMIT WINDWATCH See module A, page 4
41137005	UNIVERSAL INDICATOR TEST STICK See module A, page 6
41031060	HAND-HELD BIOLOGICAL AGENT DETECTOR BIO-SEQ PCR-BASED The first portable, hand-held thermocycler capable of detecting both bacterial and viral pathogens quickly and accurately, using Polymerase Chain Reaction (PCR) technology. PCR is a new molecular technique that replicates the DNA structure of a bacterial or viral pathogen. PCR can replicate the molecule up to a billion-fold, providing enough genetic material for specific detection and positive identification of biological and viral agents of mass destruction. The small design of the unit makes it the perfect hand-held biological agent detector for special applications; the membrane keyboard has been designed with extra large keys allowing the unit to be used with heavy gloves. Benefits: Portable Bio-detection capability; simultaneously process 6 divergent samples; test results available in 30 minutes or less; detects both bacterial and viral pathogens.
41031061	CONSUMABLES REAGENTS FOR BIO-SEQ (box of 10) / BACILLUS ANTHRACIS (ANTHRAX)
41031062	CONSUMABLES REAGENTS FOR BIO-SEQ (box of 10) / FRANCISELLA TULARENIS (TULAREMIA)



908810

D03751

41031060

Art. No. Article/Description

MEASURING DEVICES

41031063	CONSUMABLES REAGENTS FOR BIO-SEQ (box of 10) / YERSINIA PESTIS (PLAGUE)
41031064	CONSUMABLES REAGENTS FOR BIO-SEQ (box of 10) / TRAINING SAMPLE CARTRIDGE
41031070	PORTABLE SPECTROPHOTOMETER DR/2400 FOR WATER ANALYSIS The DR/2400 Portable Spectrophotometer brings you the technically superior operation and a design that makes it completely portable. Battery and line power possible; more than 130 pre-programmed tests; easy user interface touch screen display; automatic calibration adjustment and wavelength selection; high-performance optical system promotes accuracy and stability; durable and robust design; multilanguage capabilities.



41031070

PROTECTIVE EQUIPMENT

142501	PETROBEN CHEMICAL PROTECTION GLOVES 350 mm LONG See module A, page 6
143240	CHEMICAL RESISTANT SAFETY BOOTS "PUROFORT", COLOUR GREEN See module A, page 6
410709	NUFAB COVERALL AGAINST SPRAY AND SPLASH HAZARDS / SIZE XL See module A, page 7
41064150	CHEM-TAPE FOR CHEMICAL PROTECTION See module A, page 7
401300	BREATHING MASK PANORAMA NOVA RA-EPDM See module A, page 7
40492302	MULTIPURPOSE FILTER 103 A2B2E2K2P3 WITH CONNECTION IN ACCORDANCE WITH EN 148-1 See module A, page 7
411211	TOTAL ENCAPSULATING SUIT "TRELLECHEM LIGHT EXTRA" Medium-duty, gas-tight and chemical proof suit for use against all common chemicals and gases. Styled as expanded back, total encapsulating suit to integrate with self-contained breathing apparatus that is worn inside. Manufactured of double PVC-coated polyamide fabric. Features one pair of welded five finger gloves manufactured of coated neoprene and one pair of welded heavy-duty PVC boots. Boots feature a puncture resistant stainless steel midsole and steel toe. Designed to be worn over regular work clothes. Can be decontaminated after each use. Fly front with heavy-duty, pressure tight zipper. Raglan sleeves. Seams are lapped shielded and electronically welded (seams between gloves, boots, and suit are double welded to prevent risk of leakage). Integrated hood. Colour: Bright orange.
411170	LONG STYLE OVERALL, BLUE, WITH HOOD, VELCRO-FASTENER, COTTON 100 % cotton-overall with hood to wear under chemical protective suits. Colour: blue Standard size: 50, 52, 54, 56, 58, 60, 62, 64
40735001	BREATHING APPARATUS CONTOUR With COMPOSITE air cylinder 6,8 l / 300 bar
40892015	COMPRESSED-AIR CYLINDER COMPOSITE 6,8 l / 300 bar with gastight ALU-liner C/W valve according to EN 144-1



411211



411170

MBAT EQUIPMENT

Art. No. Article/Description

OTHER MATERIALS

919860	3M POWERSORB CHEMICAL SPILL ABSORBENT See module A, page 7
285275	POWER SAFE CHEMICAL AGENTS BINDER POWER-SAFE is a very special chemical binding agent, which can be used for any liquids. This chemical binding agent is environment-friendly and harmless to people, animals and plants. The special configuration of CHEM-SAFE prevent any dangerous reaction with every liquids (acids and bases). With an included special indicator it is possible to see, if the liquid is an acid or a base (changing the colour). This binding agent has a high absorbing capacity and it can be used to build a barrage.
904310	COLLECTING TUBE See module A, page 8
904311	COVER FOR COLLECTING TUBE See module A, page 8
937000	Spillbag 100 COLLECTION RESERVOIRS See module A, page 8
302920	ELECTRONIC HAND SEARCHLIGHT, CEAG SEB 8 L See module A, page 8



Overview matrix of Module B:

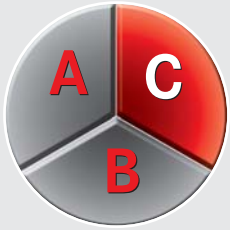
The following matrix shows a summary of all the products required for biological hazard control. Furthermore, the matrix includes information concerning the quantity of items for each product, which we recommend for the equipping of a fire brigade unit.

Ord. No.	Designation	r.q.*	Ord. No.	Designation	r.q.*
	Blockage material			Protective Equipment	
676310	Barrier tape	3	142501	Chemical protection gloves	6
676250	Metal barrier support	8	143240	Safety boots	6
676255	Base plate	8	410709	NuFab Coverall	6
908810	Sledge hammer	1	41064150	Chem-Tape	1
676200	Multi purpose stand	2	401300	ND-breathing mask	6
D03751	Sign "Warning of bio hazardous"	2	40492302	Multi purpose filter	6
	Measurement devices		411211	Total encapsulating suit	3
41135103	Wind watch	1	411170	Long style overall	3
41137005	Universal indicator test stick	1	40735001	Breathing apparatus Contour	3
41031060	Bio-Seeq bio detector	1	408922	Compressed-air cylinder	3
41031061	Reagents for Bio-Seeq (Anthrax)	1		Other Materials	
41031062	Reagents for Bio-Seeq (Tularaemia)	1	919860	Chemical spill absorbent	1
41031063	Reagents for Bio-Seeq (Plague)	1	285275	Power Safe – chemical agents binder	2
41031064	Reagents for Bio-Seeq (Training sample)	1	904310	Collecting tube	1
41031070	Portable spectrophotometer	1	904311	Cover for collecting tube	1
			937000	Spill bag collection reservoirs	1
			302920	Electronic hand searchlight	2

* recommended quantity

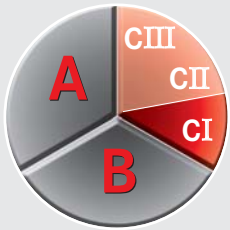
CONTAMINANT CO

Module C: CHEMICAL HAZARD



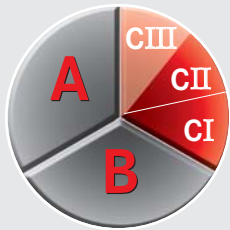
Incidents involving dangerous chemicals are the most common. For this reason, a large number of equipment products are available for this field of operation. The individual modules in this field build on one other. We recommend starting with the module CI "basic equipment". In those cases where a fire brigade already makes use of all the articles included in CI, it is reasonable to proceed to module CII. Equally, all articles included in modules CI and CII should be available, in order to make correct use of module CIII.

Module CI: CHEMICAL HAZARD – INITIAL MEASURES



- Focus: requirements of fire brigade units with low risk potential
- Covers the majority of common contaminant control operations (small-scale operations, initial measures)

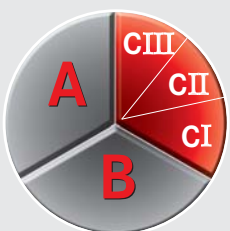
Module CII: CHEMICAL HAZARD – OIL DEFENCES



Products that are used specifically for intervention with mineral oil products and other highly inflammable liquids

- Focus: pumps and earthing material
- For medium-sized fire brigade units with higher operational frequencies and moderate risk potential

Module CIII: CHEMICAL HAZARD – SPECIAL FORCES



Equipment for special forces

- Special analytical products
- For large fire brigade units with high risk potential

A large number of products are available for chemical hazard control. The information below shows which of our individual products belong to the modules CI, CII or CIII. The subsequent overview matrix lists all C module products, so that you can easily choose the products you need!

MBAT EQUIPMENT

Art. No.	Article/Description	CI	CII	CIII
BLOCKAGE MATERIAL				
	Warning Sign, 400 mm, made of aluminium sheet Triangle in European standard design. Yellow background, black border, black pictogram.			
672531	"TOXIC SUBSTANCES"	X		
672532	"OXIDISING SUBSTANCES"		X	
672535	"GENERAL DANGER"	X		
672536	"TOXIC SUBSTANCES"	X		
672538	"FIRE HAZARDS"		X	
676200	MULTI-PURPOSE STAND FOR WARNING SIGNALS See module A, page 4	X	X	
676250	METAL BARRIER SUPPORT See module A, page 4	X		
676255	BASE PLATE FOR BARRIER SUPPORT See module A, page 4	X		
676310	EUROPE BARRIER TAPE See module A, page 4	X		
908810	SLEDGE HAMMER See module A, page 4	X		

MEASURING DEVICES		CI	CII	CIII
40999205	SIMULTANEOUS TEST SET INDICATOR SUBSTANCES		X	
409994	SIMULTANEOUS TEST-SET I inorganic fire gases		X	
409995	SIMULTANEOUS TEST-SET II organic fire gases		X	
410001	GAS DETECTOR "ACCURO" Consisting of a gas-detector pump and a choice of more than 150 different tubes to measure a wide range of gases and vapours. The bellows- pump sucks in exactly 100 cm ² of gas per stroke. This pump is equipped with an automatic stroke counter and a tube break-off plate. Basic unit comes without test tubes.		X	
409992	ADAPTER SIMULTANTEST TEST SET		X	
410012	EXTENSIONHOSE ACCURO Lenth: 3 m		X	



Art. No. Article/Description

MEASURING DEVICES

CI | CII | CIII

410310072 **GAS-DETECTOR GASALERT MICRO 5 (UP TO 5 GASES) WITH VIBRA-ALARM; EX, O2, CO AND H2S (WITH PUMP)**

Multi-Gas-Detector for up to 5 gases (Standard: H2S, CO, O2, LEL) with acoustic (95 dB), visual and vibration-alarm with big LC-display.

Adjustable alarm levels, simple calibration, simple sensor replacement (plug-in), peak exposure recording, full function self-test (integrity of sensors, battery, circuitry and alarms) on activation, auto backlight (at low light and alarms), IP 66/67.

Standards: Ex II 2G EEx ia d IIC T4 with alkaline batteries AA (ATEX), Ex II 2G EEx ia d IIC T3 with NiMH Accu (ATEX). Measuring range: H2S: 0-100 ppm, CO: 0-500 ppm, O2: 0-30 Vol%, Ex: 0-100 % LEL; Dimensions: 74 x 145 x 38 mm; weight: only 370 g. 2 years warranty. comes with: rubber-protection, calibration hose, 2 alkaline batteries AA, instruction, Options (not included): Data logger, accu pack with charger, integrated pump

Sensors: O2 (0-30%), CO (0-999 ppm), H2S (0-100 ppm), PH3 (0-5 ppm), SO2 (0-100 ppm), NO2 (0-99,9 ppm), HCN (0-30 ppm), Cl2 (0-50 ppm), NH3 (0-100 ppm), ClO2 (0-1 ppm), O3 (0-1 ppm), PID (0-999 ppm) und Ex (0-100 % LEL; 0-5% Vol%)

X		
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410310072

410310075 **MULTI GAS-DETECTOR GASALERT MICRO (4 GAS) VIBRA- / ALARM; EX, O2, CO AND H2S (WITH DATENLOGGER)**

Multi-Gas Detector for up to 4 sensors (H2S, CO, O2, Ex) with audible (95 dB), visual and vibration alarm with big LC-Display. Adjustable alarm levels, simple calibration, simple sensor replacement (plug-in), peak exposure recording, full function self-test (integrity of sensors, battery, circuitry and alarms) on activation, auto backlight (at low light and alarms), Standards: Ex II 2G EEx ia d IIC T4 (ATEX) with alkaline batteries, Measuring range: H2S: 0-100 ppm, CO: 0-500 ppm, O2: 0-30 Vol%, Ex: 0-100 %LEL, Size: 60 x 100 x 33 mm, Weight: 211 g, Warranty: 2 years including sensors.

Complete: sensors, 2 alkaline batteries (AA) batteries, calibration hose, and instructions, with data logger (16 MB MMC-Card with software)

	X	
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410310075

MBAT EQUIPMENT

Art. No. Article/Description

MEASURING DEVICES

CI | CII | CIII

41031050	<p>GAS-DETECTOR-ARRAY GDA2 / PORTABLE DETECTOR FOR HAZARDOUS GASES</p> <p>The new Portable Gas Detector Array is specially designed to detect and monitor most common hazardous gases including chemical warfare agents (CWA). The ion-mobility spectrometer (IMS) functions as a part of an array that includes a photo ionization detector (PID), an electrochemical cell and two metal oxide sensors. Detects all the main hazardous gases. Works with computer or in stand-alone mode; specifically designed to first responders. Substance identification possible using pattern recognition methods.</p> <p>Modes of operation: GDA mode for hazardous compounds, IMS mode for chemical warfare agents.</p> <p>Detectors: ion mobility spectrometer (Ni63 ion source, positive and negative mode), photo ionization detector (10,6 eV), electrochemical cell, 2 metal oxide sensors.</p> <p>Measurement Time: typical some seconds to less than 1 min; Identification: different pattern recognition methods available.</p> <p>Display: graphical display integrated, serial port - RS-232</p> <p>Power: battery powered (NiMA)</p> <p>Weight: 4,2 kg (without batteries)</p> <p>Dimensions: ca. 395 x 112 x 210 mm</p> <p>Options: Infrared heater for thermal desorption and analysis of surfaces</p>			X
41133450	<p>TEMPERATURE MEASUREMENT INFRARED THERMOMETER</p> <p>The graphical display automatically charts the last ten temperature points using maximum and minimum values to establish the range. The MX2 is the basic model. Just point, shoot, and read.</p> <p>Applications: check for hot spots in electrical panels, circuit breakers, generators and gearboxes. Monitor: supply and return registers, air stratification, duct leakage.</p> <p>Monitor temperatures: of petrol and diesel engine cylinders, railroad axles, bearings</p>		X	
411338	<p>LASER – DISTANCE MEASURING DEVICE DISTO CLASSIC INCL. BELTBAG AND LASERGOGGLES</p> <p>Measuring range: 0.2 up to 200m with an accuracy of 3 mm. Many additional functions as indirect height and range findings (Pythagoras).Stores the last 15 measured values. Multi functional end piece for measuring planes and corners.</p>			X
41135103	<p>ADC SUMMIT WIND WATCH</p> <p>See module A, page 4</p>	X		



410310075



41031050



41133450

Art. Nr.	Article/Description	CI	CII	CIII
MEASURING DEVICES				
41137005	UNIVERSAL INDICATOR TEST STICK See module A, page 6	X		
918715	OIL TEST TAPES 1 carton = 100 pcs.	X		
PROTECTIVE CLOTHING				
142501	PETROBEN CHEMICAL PROTECTION GLOVES See module A, page 6	X	X	X
143240	CHEMICAL RESISTANT SAFETY BOOTS "PUROFORT" Colour: green	X		X
285202	CHEMICAL SPLASH GOGGLES "HELICO CHEM" Certified as to the new European standard EN 166 (replaces BS 2092 Grade 1). Comfortable to wear in connection with optical glasses. Weight: 0.03 kg.	X		X
401300	BREATHING MASK PANORAMA NOVA RA-EPDM See module A, page 7	X		X
40492302	MULTIPURPOSE FILTER 103 A2B2E2K2P3 WITH CONNECTION IN ACCORDANCE WITH EN 148-1 See module A, page 7	X		X
40735001	BREATHING APPARATUS CONTOUR WITH AIR CYLINDER 6,8 l / 300 bar See module B, page 10	X	X	
40892015	COMPRESSED-AIR CYLINDER COMPOSIT 6,8 l / 300 bar with gastight ALU-liner C/W valve according to EN 144-1	X	X	
41064150	CHEM-TAPE FOR CHEMICAL PROTECTION See module B, page 6	X		X
41070810	Disposable Coverall Tyvek-Pro.Tech® Model Pro-Chem I-F Protects against concentrated inorganic acids and bases, and against a wide range of organic chemicals. Tyvek® F has an antistatic coating on the white inside surface. Coverall in comfortable pattern, special (Velcro fastener) chin flap, compounds mask with hood. Double special zipper front with Velcro fastener storm flap, special inlaying flap. Attached hood. Elastic at hood, wrists and ankles. CE mark Type 3 Colour: orange Weight: 0.5 kg	X		X
411170	LONG STYLE OVERALL, BLUE, WITH HOOD, VELCRO-FASTENER, COTTON See module B, page 10	X	X	



411338



41070810

MBAT EQUIPMENT

Art. Nr.	Article/Description	CI	CII	CIII
PROTECTIVE CLOTHING				
41121005	CHEMICAL PROTECTIVE SUIT ONE-SKIN ACC. TO NFPA 1991 "TRELLECHEM VPS" NFPA 1991, 1994 edition approved, CE-certified according to EN 943. Protection against hazardous chemicals in liquid, vapour, gas and solid form. The suit is made of a uniquely integrated blend of rubber and super-polymer barrier materials. The flexible and light VPS comes with an integrated ventilation system that provides a high degree of safety and comfort. Garment Material: Polyamide fabric coated on both sides with chloroprene and with an additional multilayer super-polymer barrier film laminate on inside. Sizes: M - for persons up to 182 cm, L - for persons taller than 182 cm. Weight: 10 kg	X	X	
DB0352	TEXTILE GLOVES FOR TOTAL ENCAPSULATING SUITS 1 pack = 5 pairs	X	X	
SEALING MATERIALS				
632530	LASHING BELT, TWO-PART, WITH RATCHET AND ROUND HOOKS AT THE ENDS, 500 mm wide, 8 m long, breaking force 8000 kg	X		
911401	DRAINBLOCKER DRAIN COVER 91 x 91 x 1,1 cm	X		
911530	DRAIN COVER 150 x 150 x 60 cm		X	
911750	CELLULAR RUBBER PLATE 50 x 100 x 3 cm	X		
911821	PLASTIC SEALING BAND 10 m, black, width 100 mm, 0.15 mm thick, on spool	X		
911822	PTFE SEALING TAPE 10 m long, 12 mm wide	X		
912003	SEALING WEDGES Made of soft wood, length of wedges 300 mm, consisting of: 5 Wedges 200/70 mm 5 Wedges 150/70 mm 5 Wedges 100/70 mm 5 Wedges 50/70 mm Weight: 12 kg	X		
912004	SEALING STOPPERS Made of soft wood, 300 mm long, consisting of: 5 Stoppers 90/25 mm diameter 5 Stoppers 60/10 mm diameter 5 Stoppers 30/10 mm diameter 5 Stoppers 25/10 mm diameter Weight: 3.70 kg	X		
912041	SEALING COMPOUND VETTER 500 ml, 600 g		X	



41121005



632530



632530



912003/912004

Art. No.	Article/Description	CI	CII	CIII
SEALING MATERIALS				
912046	PIPE SEALING PACKING 3" Width: 3" Diameter: 88,9mm Dimensions (LxWxH): 150/163/116 mm Weight: 3.35 kg Sealing: Perbunan		X	
912281	EAK SEALING BANDAGE LB 5-20 BS 1,5 bar		X	
912282	LEAK SEALING BANDAGE LB 20-48 BS 1,5 bar		X	
912294	LEAK SEALING BAG LDK 50/30 W BASIC KIT Suitable for sealing of punctured tanks, containers or large diameter pipes. Chemical resistant design. Operates on 1.5 bar pressure, thus reducing the risk of damaging the container through too high a pressure. The basic set consists of: High volume foot operating pump 1.5 bar with sec.valve Air Inflation Hose, 10 m, blue; leak sealing bag LDK 50/30 W with swivel eyes; ratchet belt for tensioning, 2 m long, colour orange; ratchet belt for tensioning, 2 m long, colour blue; belt attachment, 5 m long, colour orange; belt attachment, 5 m long, colour blue; tensioning and extension belt, 10 m long, colour orange, with ratchet; tensioning and extension belt, 10 m long, colour blue, with ratchet; 2 sealing plates, 600 x 300 x 30 mm, CR; 1 sealing plate, 1000 x 300 x 30 mm, CR; 1 acid proof cover, PVC, yellow for LD 50/30 W. Weight of the complete set: 18 kg		X	
912370	COMPACT GULLY-SEALING BAG SYSTEM Consists of: 1 Compact-Gully-Sealing bag 1 Air-Cylinder 1 l 200 bar 1 Filling and Safety device 1 Portable case, yellow for round holes from 300 up to 500 mm diameter.	X		
912380	LECK STOP SPECIAL SEALING DEVICE 150 x 150 mm The very flexible surface of LECK-STOP enable to close holes even at difficulty accessible or strongly distorted places. Chemical resistant materials are used for this special equipment. Easy in use: 1. Push the head into the opening of the container 2. Fix it at the edge 3. turnover - ready.	X		



912046



912281 / 912282



912294



912371



912380

MBAT EQUIPMENT

Art. No. Article/Description

SEALING MATERIALS

		CI	CII	CIII
912400	SET LEAK SEALING LANCE Consists of: <ul style="list-style-type: none"> • 3 Wedge-Type Bags • 1 Cone-Type Bag • 4 Lances, each 35 cm long • 1 Controller • 1 Shut-off Unit • 1 Foot Pump • 1 Portable Case 37 x 35 x 13.5 cm Weight: 9 kg		X	
D01798	SCREW CLAMP 300 mm	X		



912400



902640



902876

COLLECTION CONTAINERS

		CI	CII	CIII
902640	SELF-ERECTING INTERCEPTIVE TANK, 3000 I Contents 3.000 I, suitable for storing non-potable water. Desert proof. Designed as "open top", self-erecting type, provided with floating rim.	X		
902670	CARRYING BAG for 3000 I TANK	X		
902840	WATER TANK, SELF SUPPORTING, 5000 I Contents 5.000 I, suitable for storing non-potable water. Desert proof. Designed as "open top", self-erecting type, provided with floating rim. Fitted with brass gate valve and 2.5" male instantaneous coupling for filling purposes.		X	
902870	CARRYING BAG FOR 5000 I TANK		X	
902876	CLOSED WATER STORAGE CONTAINER 5.000L QUAL. B110 suitable for storing non-potable water. Designed as self-erecting "pillow" type tank, fully closed. With vent on top. Synthetic fibre, 1000g/m ² . Perbunan N coated on both sides. Tensile strength approx. 300 daN/5 cm width. High-frequency welded. Fitted with brass gate valve and BS 336 Coupling 2 1/2" male made of brass for filling purposes.		X	X
902882	CARRYING BAG FOR WATER CONTAINER 5000		X	X
902980	FLANGE, SLIDE VALVE AND ADAPTOR STORZ B-2 1/2", LIGHT ALLOY	X	X	X
903050	COVER PVC COMPLAN 650 g/m² WITH EYES Protection for the tent floor, when the subsoil is poor. Material: PVC Complaan 650 g/m ²	X		
904254	CHEMICAL RESISTANT CONTAINER 100 I WITH COVERING into one another stackable, inside and outside smooth surfaces, transparency, approx. 100l contents, with flat rim, stretcher loops, Diameter. 59 cm. Height: 54 cm. Weight: 5.5 kg			X



902980



904356

904254

Art. No.	Article/Description	CI	CII	CIII
COLLECTION CONTAINERS				
904310	COLLECTING TUBE 635 x 380 x 240 mm, 36 l	X		
904311	COVER FOR COLLECTING TUBE (904310)	X		
904356	STAINLESS STEEL BUCKET Heavy construction, 15 l.	X		
904430	INTERCEPTION, MANMADE FIBRE FABRIC Delivered in standard size 3 x 3 m, 4 x 4 m, 5 x 5 m.			X
904520	BLOWN PE FILM TUBING, 0,10 mm			X
910520	OIL AND ACID DRAINAGE GULLY Four-part, glass-fibre reinforced Polyester construction. Colour yellow-orange. The gully consists of one head-piece (113 cm long), and three separate elements (each 109 cm long). Width of each element is 58 cm, height 13 cm. The overall, operational length is 400 cm. Weight: 10 kg.		X	
910530	FUNNEL VA 400 x 400 x 150 mm, OUTLET MALE COUPLING TW 50, STAINLESS STEEL With drain tube 600 mm, earthing lead with wing nut			X
910640	OIL COLLECTOR FUNNEL		X	
937000	SPILLBAG 100 COLLECTION RESERVOIRS For collecting larger quantities of dangerous liquids in leakages or accidents. Capacity: 100 l Material: PE 0.2 mm	X		

PUMPS		CI	CII	CIII
912608	SUBMERSIBLE ACID PUMP EEX, 400 V, 1000 W, COUPLING VK50-VA Submersible pump, made of stainless steel. The unit is suitable for pumping chemical contaminated sewage water and acids. The pump is explosion proof as per class EEx d IIB T4, so it can be used in hazardous areas. Although the pump is explosion proof, it should not be used for decanting of inflammable liquids (zone 0). Comes complete with 8 m connection cable, with 4-pole EEx plug GHG511 3406 R0001 fitting the motor protection switch box. The cable is duly protected against acids and chemicals by means of a corrugated, stainless steel protection hose. The pump outlet is provided with a male 50 VA tanker coupling, made of stainless steel. Total weight, including cable: 55 kg.			X



910520



910530



910640



937000



912608

MBAT EQUIPMENT

Art. No.	Article/Description	CI	CII	CIII
PUMPS				
912609	EXPLOSION-PROOF MOTOR PROTECTING SWITCH In combination with 912608			X
912612	STAINLESS STEEL ACID DECANTING PUMP DIN 14427 / GUP 3-1,5 DN 50 WITH TANKER COUPLINGS MK/VK 50 Tested and certified to be in full accordance with DIN 14427. This is a single stage, self-priming centrifugal pump, made of stainless steel, material No. 1.4408 and 1.4571. The pump is suitable for handling of hazardous materials, mineral oils and aggressive liquids like acids, caustics etc. Certified for the use with aviation fuel Jet A1, JP 4 etc. The pump comes with a manual priming pump, for a max. suction lift of 8 m. The centrifugal pump has an output of 620 l/min at 0.5 bar, with a 2 m suction lift (decanted media: water). Pump inlet: female tank coupling MK 50 VA, made of stainless steel. Pump outlet: male tank truck coupling VK 50 VA, made of stainless steel. We do not recommend the use of BS 336 couplings, so as to avoid that standard fire hoses might be used for this pump. The pump is driven by a 3-phase 50 Hz, 400 V electric motor 2,5 kW, 4,8 Amp. Explosion proof as per class EEx e II T3. Comes complete with explosion proof motor switch, cable and explosion proof 5-pin plug, certified as per class EEx de II CT 6. Dimensions of the pump, including carrying frame: 620 x 390 x 460 mm. Weight of the complete pump: approx. 82 kg			X
912648	PUMP STRAINER SUITABLE FOR F 430 S/V4A, 41			X
912650	ELECTRIC BARREL PUMP FLUX "F 460 - 1 EX" Electric barrel pump, explosion proof as per EEx de II C T6 and 5. Driven by a 1-Phase electric motor 230 Volt, 50 Hz, 650 Watt, splash-proof, protection class IP 44, radio shielded. Special voltage on request at extra cost. Comes with 5m cable and Schuko type plug. The pump thread will be delivered without pump tube unit, that must be purchased at extra cost. Weight: 10 kg.			X
912653	SPARE TUBE F 430 S 41/38 , pump tube uni, 1.200 mm long, weight: 3.7 kg			X
912656	TOP 10 UNIVERSAL HOSE 1", 10 m Non -collapsible delivery hose, made of Polyethylene, diameter 1" (25mm), 10m long. Weight: 9 kg.			X
912657	EARTHING CABLE , 2.1 m long, complete with spring clip			X



912612



912648



912650

912653



912657



912665

Art. No.	Article/Description	CI	CII	CIII
PUMPS				
912665	QUICK-ACTING STOP-COCK S Quick action stop-cock. For use at the outlet of the delivery hose. Made of stainless steel, suitable for use in the chemical, pharmaceutical and food-processing industries. Weight: 1,36 kg			X
912815	"SUPER" SPECIAL-STEEL V2A HAND-OPERATED DIAPHRAGM PUMP For pumping both low and high-viscosity media as well as heavily contaminated ones. All materials sucked in by the hose can be pumped, e.g. stones, sand, metal parts etc. On pressure side: male coupling 50, stainless steel, curved piece with TEFLON seal. On suction side: Female coupling 50, stainless steel, sealing ring piece with VITON seal, form GSD.			X
912853	DOUBLE MEMBRANE PUMP PNEUMATICALLY OPERATED MODEL VA 15 - FIRE-BRIGADE SET COMPLETE The pump set was developed, in order to make in accidents with running out fuels (gasoline or Diesel) a rapid evacuating of the fuel from passenger car and truck tank possible. Technical data: max. handling capacity: 50 l/min. max. inlet pressure: 7 bar max. height: 70 m max. operating temp. 65°C Weight: 3.5 kg Fire-Brigade set complete: with hoses and airconnectors. Weight: approx. 15 kg	X		
912877	COMPLETE-SUCTION ATTACHMENT with coupling VK50 VA		X	



MBAT EQUIPMENT

Art. No. Article/Description

PUMPS

	CI	CII	CIII
<p>912879 HAZMAT HOSE PUMP ELRO GP 20/10 EX Suitable for decanting hazardous liquids, approved as per prevailing EN standards and DIN 14424 and TÜV certified. Self-priming pump with built-in antistatic "Hypalon" feed hose. As the liquid being decanted comes only into contact with the inside of the hose, the pump is perfectly suitable for handling aggressive media. Also, media with a very high viscosity can be handled without problems, provided that the pump speed is adjusted. Electric motor 400 Volt 3 Phase 50 cycles in explosion - proof design as per class EEx e II, T3. Nominal Output: 2.9 / 2,1 kW. Other voltages upon request at extra charge. The motor is set for two operating speeds: Stage 1: 1410 RPM = 10 m³/hr, max. pressure 5 bar; Stage 2: 2840 RPM = 20 m³/hr, max. pressure 2 bar. The pump is supplied with a carrying frame with 4 swing-out handles! Sheathing made of stainless steel. Suction height: 9m self-priming. Temperature range of decanted liquids: -20° C up to + 70° C. Weight of the complete pump: 85 kg.</p>		X	
<p>912879001 STANDARD COUPLING ACCESSORIES MK50/VK50 Set of instantaneous couplings - female/male, consisting of: Suction side: "Camlock" female part with tube-bend and female 50-VA, made of stainless steel, with sealing plug VB 50-VA. Delivery side: "Camlock" female part with T-piece and male coupling 50-VA, with sealing cap NB 50-VA and Hypalon seal at the T-piece, second outlet with Pulsator. Weight: 11 kg</p>		X	
<p>912891 STAINLESS STEEL FLAT SUCTION ATTACHMENT VK50/VA Flat suction unit, made of stainless steel, comes with male tank truck coupling 50mm diameter. Weight: 1.9 kg</p>		X	

EARTHING MATERIAL

	CI	CII	CIII
<p>315841 EARTHING CONDUCTOR 50m, 16 mm², on cable reel</p>		X	X
<p>915012 EARTHING SCREW CLAMP BRASS Earthing screw clamp made of brass. Comes with 10 m of earthing cable, 16 mm². Weight: 2.5 kg</p>		X	X
<p>915013 EARTHING CABLE, ISOLATED, 16 mm², 10 m LONG With cable connector at both sides EARTHING CABLE, ISOLATED, 16 mm², 5 m long With cable connector at both sides</p>		X	X
<p>915013001 EARTHING CABLE, ISOLATED, 16 mm², 5 m long With cable connector at both sides</p>		X	X
<p>915013002 EARTHING HIGH-GRADE STEEL LATTICE 500 x 500 mm</p>		X	



912879



912891



315841

915012

Art. No.	Article/Description	CI	CII	CIII
EARTHING MATERIAL				
915016	EARTHING CLAMP Magnetic, 50 mm diameter, 10 mm high		X	X
915020	EARTHING ROD, GALVANIZED Insert it into the earth and it will prevent electrostatic charging. Length: 550mm, with T-handle, earthing stud and M8 wing nut. Weight: 0.75 kg		X	X
915023	EARTHING SYSTEM Insert it into the earth, and it will prevent electrostatic charging. Length: 550mm, with T-handle, earthing stud and M8 wing nut. Weight: 0,75 kg		X	X
ELECTRICAL MATERIAL				
302920	ELECTRONIC HAND SEARCHLIGHT CEAG SEB 8 L See module A, page 8		X	
302927	MOUNTING BRACKET FOR SEARCHLIGHT SEB 8 L, 12/24 V		X	
315484	HARD RUBBER CABLE REEL 518 EX WITH 30M GIFAPLAST CABLE 5x2.5 AND PLUG, EX-PROOF All-rubber cable reel suitable for explosion sensitive area Series 518 EX. Main-reel and help-reel are composed of one homogeneous piece of all-rubber, connection "earth" double fixed, foldable handle works as reel fixing, ex-plug is situated in the help-reel, insulated handle, solid steel rack, brass plated feet. Fitted with Gifaplast wire 5x2.5 mm ² , main-reel 25m, help-reel 5m and ex-proof plug and clutch 5x16 A, 400V. -Test standard number according to 94/9EG: EX II 2 G/CE 0102 -Ex-protection: EEx de IIA T6 -European-test-certificate of construction: PTB 03 ATEX 1186 -Rated voltage: 230/400 V, 50/60 Hz -Rated current: max. 16 A -System of protection: IP 65 -Protection category 2, protective insulation Weight: 20 kg Measure: LxWxH = 400 x 310 x 380 mm		X	X
315494	HARD RUBBER CABLE REEL 518 EX WITH 30m GIFAPLAST CABLE 3x2.5 AND PLUG, EX-PROOF Like 315484 (see above) with Gifaplast wire 3x2.5 mm ² , main-reel 25m, help-reel 5m and ex-proof plug and clutch 230 V. Weight: 17 kg Measure: LxWxH = 400 x 310 x 380 mm		X	X



MBAT EQUIPMENT

Art. No. Article/Description

ELECTRICAL MATERIAL

	CI	CII	CIII
315591 ABLE REEL, 1 CEE 400V, 3 SCHUKO TYPE SOCKETS WITH 30 m GIFAPLAST CABLE 5X2.5 AND CEE PLUG All-rubber cable reel type 502, fitted with 1 CEE-socket 5x16A, 400V and 3 earthing contact-type sockets 16A, 230V. Standard with burn-out protection to ÖVE IG 31 + ÖVE IG 33 with all phase disconnection, roller part composed of one homogenous piece of all-rubber, with retracted tip brake, don't rub on the roller part, all plug connections with spring-actuated hinged cover, solid steel tube rack corrosion resistant, absolutely waterproof, resistant to oils and acids. With 30 m Gifaplast wire 5x2.5 mm ² and all-rubber CEE-plug 5x16A, 400V. Weight: 13 kg Measure: LxWxH = 252 x 310 x 410 mm			X
317277 TRANSITION CABLE 2m, GIFAPLAST, 5x2,5 mm² CEE-PLUG + EX-COUPLING, 400V, 16A		X	X
317286 TRANSITION CABLE 2m, GIFAPLAST, 3x2,5 mm² SPLASH-PROOF PLUG + EX-COUPLING 230 V, 16 A		X	X

TOOLS

	CI	CII	CIII
908400 SPADE WITH T-HANDLE "AMPCO" 1160 mm long, weight: 2.6 kg		X	
908520 SPARK PROOF MATTOCK "AMPCO" Weight: 3.7 kg		X	
909220 CROWBAR "AMPCO" 1525 mm long, weight: 9.1 kg		X	
909410 SPARKPROOF UNIVERSAL PLIERS 460 mm		X	
909711 TOOL KIT SPARK RESISTANT Tools made of transmit-free Ampco metal! Toolbox consisting of: 1 pc. flat chisel 200 mm long C 14, 1 pc. hand pointed chisel 310 mm long C7, 2 pc. Swedish pliers up to 55 mm, 560 long, 1 pc. punch 3 mm, 1 pc. punch 6 mm, 1 pc. hammer 500 g, 1 pc. Pliers groove joint 255 mm long, 1 pc. linemans pliers 230 mm P35, 1 set (8 pc.) double end wrenches (8x10, 12x14, 13x15, 16x18, 17x19, 20x22, 24x27, 30x32), 1 pc. screwdriver E4, 1 pc. screwdriver E8, 1 pc. screwdriver E10, 1 pc. phillips screwdriver type. 2, 1 pc. phillips screwdriver type. 4, 1 pc. wrench bung for barrels		X	



315591



908400



909410

Art. No.	Article/Description	CI	CII	CIII
ELECTRICAL MATERIAL				
909721	DOUBLE OPEN END WRENCH SET 6-50 mm SPARK RESISTANT Consisting of: 6 x 7mm 104mm long 21 x 23mm 279mm long 8 x 9mm 104mm long 23 x 26mm 302mm long 10 x 12mm 135mm long 24 x 27mm 313mm long 11 x 14mm 135mm long 25 x 28mm 313mm long 13 x 15mm 159mm long 30 x 32mm 356mm long 16 x 18mm 198mm long 36 x 41mm 400mm long 17 x 19mm 198mm long 46 x 50mm 460mm long 20 x 22mm 232mm long			X
910412	SCOOP MADE OF STAINLESS STEEL, 4 l WITH HANDLE, 1.7 m LONG			X



HOSES		CI	CII	CIII
912714	CORRUGATED STAINLESS STEEL HOSE MK/VK50-VA Corrugated hose, 5 m long, 50 mm diameter. Semi-rigid delivery hose, with wire protection made of stainless steel. Bending radius 300 mm. Maximum operating pressure 30 bar. The delivery hose is suitable for pumping chemical contaminated sewage water and acids. Each hose comes with a male and female tank truck couplings 50 mm diameter, made of stainless steel. Weight: 18.5 kg			X
912731	POLYPAL PLUS HOSE MK/VK-VA, 5m Delivery and suction hoses, 5 m long, 50 mm diameter. Tested and certified to be in full accordance with DIN 2823. Non collapsible rubber hose, Polyamide textile inlays and steel wire spiral. Suitable for suction or delivery of hazardous materials, mineral oils and aggressive liquids like acids, caustics etc. Certified for the use with aviation fuel Jet A1, JP 4 etc. Electrically conductive by means of an earthing connection with M 8 wing nuts of stainless steel. Comes with male and female tank truck couplings 50 mm diameter, made of stainless steel. Weight: 12.5 kg			X
912732	PVC SUCTION AND PRESSURE HOSE MK/VK50-VA, 5m Suction hose, 5m long, 50mm diameter: Made of transparent PVC, with steel spiral. Resistant to most highly diluted acids and caustics as well as to salt solutions. Limited resistance to oil (when used for short periods of time). Electrically conductive by means of an earthing connection with wing nuts. Comes with male and female tank truck couplings 50 mm diameter, made of stainless steel. Weight: 12.5 kg	X		X

MBAT EQUIPMENT

Art. No.	Article/Description	CI	CII	CIII
HOSES				
912736	POLYPAL PLUS HOSE DN50, MK/VK50-VA, 10 m Like 912731, but 10 m		X	X
912929	"OEL-FAVORIT" PRESSURE HOSE 15 m, coupling Storz C		X	X
912929	"OEL-FAVORIT" PRESSURE HOSE 15 m, coupling Storz C		X	X

FITTINGS		CI	CII	CIII
914080	TANK WAGON BLIND CAP 50		X	
914082	TANK WAGON WELSH PLUG 50		X	
914099	ADAPTER VK80/VK50-VA		X	
914102	CONNECTION UNIT, FEMALE CPLG.50		X	
914103	CONNECTION UNIT, MALE CPLG.50		X	
914106	ADAPTER MK50/VK50		X	
914122	ADAPTER MK50/STORZ C		X	
914123	ADAPTER VK50/STORZ C		X	
914203	ADAPTER MK80/VK50		X	
914204	ADAPTER VK80/MK50		X	
914220	INSPECTION GLASS WITH TW-COUPLING Chemical resistant inspection glass DN 50 with TW-Coupling for pumplines (to check the hazardous-liquid)		X	X
914387	STAINLESS STEEL FLANGE ADAPTER DN 50 TW COUPLING VK 50 VA			X
914388	STAINLESS STEEL FLANGE ADAPTER PN 6/ DN 50 TW			X



912929



914080



914082



914123



914203



914204

Art. No.	Article/Description	CI	CII	CIII
FITTINGS				
914389	STAINLESS STEEL FLANGE ADAPTER PN 6/ DN 80 TW COUPLING VK 50 VA			X
914390	STAINLESS STEEL FLANGE ADAPTER PN 6/ DN 100 TW COUPLING VK 50 VA			X
914395	V4A HEXAG.HEAD CAP SCREW DIN933 M 16x16 C/W screw nut unit DIN934 A. Plain washer DIN			X
914500	C-SAFETY SUCTION TUBE		X	
914508	ACID SUCTION PIPE, 1000 mm LONG DN 50 WITH MALE COUPLING 50-VA		X	
914600	C-SAFETY DISCHARGING TUBE For delivering highly inflammable liquids into collecting containers. Ensures far-reaching laminar outflow and therefore avoids dangerous electrostatic charge. The discharge tube is 1080 mm long, and comes with a Storz-C (52 mm) coupling made of brass. Weight: 2.6 kg.		X	
914635	OUTLET TUBE DN50 MK50-VA		X	
914699	SUCTION STRAINER DN50, VK50-VA		X	
914713	STAINLESS STEEL SHUT-OFF COCK DN 50 MK50/VK50-V4A Stainless steel shut-off cock. Comes with male and female tank truck couplings 50mm diameter on both sides. Weight: 3.3 kg		X	X
914801	C-SHUT DOWN VALVE		X	

OTHER MATERIALS		CI	CII	CIII
142995	BOOT-JACK, COLLAPSIBLE, MADE OF WOOD		X	
285275	POWER SAFE CHEMICAL AGENTS BINDER See module A, page 11	X		X
302920	ELECTRONIC HAND SEARCHLIGHT CEAG SEB 8 L See module A, page 8	X		



MBAT EQUIPMENT

Art. No.	Article/Description	CI	CII	CIII
OTHER MATERIALS				
302927	MOUNTING BRACKET FOR SEARCHLIGHT SEB 8 L, 12/24 V	X		
662110	<p>HIGH PRESSURE CLEANER P 150-15 INCLUDING ACCESSORIES</p> <p>This trolley mounted unit is used for cleaning up and decontamination of a wide range of liquids, chemical compounds, foam compounds, sewage etc. by means of high pressure steam, mixed with detergents. Water supply can be effected up to a maximum temperature of 60° Centigrade. The unit consists of the following components:</p> <ul style="list-style-type: none"> * High pressure pump, adjustable pressure up to 150 bar, water throughput between 570 and 650 l/hr * Electric motor 3,3 kW, suitable for 1-Phase current 230 Volt, 50 Hz. Special voltages upon request at extra cost. Complete with 5 m rubber cable and Schuko type plug * High pressure water nozzle, trigger operated, with 15 metre safety type high pressure hose * Screw type hose coupling for connection to the water mains * One tank containing 4 litres of detergent, complete with dosing valve and suction device * Automatic On/Off control <p>Dimensions: 390 x 280 x 880 mm. Weight with empty tank: 25 kg</p>			X
904262	<p>STAINLESS STEEL SALVAGE BARREL 315 I</p> <p>Nominal Capacity: 330 l Closures Removable Top Inside Diameter: 650 mm Outside Diameter: 686 mm Height Inside/Outside: 1021/1056 mm Wall Thickness Body: 1 mm Wall Thickness Bottom: 1 mm Weight: 25.8 kg Surface Inside Raw (Stainless Steel) Surface Outside Raw (Stainless Steel) UN Approval Y/426/S</p>			X
904275	<p>CHLORINE EMERGENCY EQUIPMENT / USEABLE FOR 50 KG CHLORINE GAS CYLINDER</p> <p>consisting of:</p> <ul style="list-style-type: none"> - base plate - protection cap with valve - 2 o-rings - goose-neck clamp - draw-spindle - 3 chains - wrench SW 30 - wrench SW 32 - 3-square scraper - hammer - tool bag - sign "Chlorine" - instruction manual 			X



662110



904262

Art. No.	Article/Description	CI	CII	CIII
OTHER MATERIALS				
904530	PE SACK 240 l, 0,1 mm			X
904601	POLYSTAR 100 GE PULSE GEN. FOR WELD.TONGS Transmitter in strong housing with handle. Optical control of welding procedure. Welding tongs with double impulse heating and permanent pressure of the tongs. ZX015.01 for seams up to 200 mm ZX015.02 for seams up to 300 mm ZX015.03 jaw pliers for seams up to 150 mm ZX015.04 jaw pliers for seams up to 250 mm			X
904605	POLYSTAR 40 D IMPULSE WELDING TONGS up to 400mm seam length, with light emitting diode and 3m lead			X
908300	SCOOP SHOVEL SPARK RESISTANT 330x430 mm, 1130 mm LONG, WEIGHT 2,70 kg	X		
910050	RUBBER-PLASTIC HAMMER 60 mm diameter	X		
910810	OIL BINDING - SHOVEL WITH HANDLE Made of aluminium perforated plate, 400 x 350 mm, to taxing away oil bonding agents on waters, with swivelling handle adjustment 45 degrees up to 90 degrees, complete with handle 1.8 m long.	X		
912856	ELRO STAINLESS STEEL TRANSPORT BARREL, 190 l			X
912857	STAINLESS STEEL FILLING DEVICE Also to the use of the transportation barrel as strainers suitably. Suitably for flange openings size 250 mm. Suction entrance: 2"AG with intake pipe to barrel soil. Suction outlet: 2"AG with inserted strainer with use as pre-screener. Suction outlet: 1"AG with plug inserted valve for the connection of the pump as vacuum device, all parts from VA (1.4571)			X
91285901	FITTINGS FOR STAINLESS STEEL FILLING DEVICE Suction entrance: MK50-VA 2"sealing ring piece with Viton compound GSD SEALING. Suction outlet I: VK50-VA 2" with Teflon thread seal and with MB50-va blindcap with clutch seal Hypalon GSD green. Suction outlet II:VK50-VA 1"BSP male thread union with blanking cover VA.			X



904601

904601

910810

912856

912857

MBAT EQUIPMENT

Art. No.	Article/Description	CI	CII	CIII
OTHER MATERIALS				
923835	HIGH QUALITY INDUSTRIAL VACUUMCLEANER/EXPLOSIONPROOF			X
933081	SPECIAL STEEL HOISTING CABLE Special steel hoisting cable, 6 mm thick, 15 metres long, with 2 0.6 m long load cables and snap hooks. Suitable for lowering and raising the submersible pump. Weight: 3.2 kg			X
93603601	AIR-TENT RB 5X4 The fast deployment tent comprises 4 parts: - outer tent with floor - supporting frame - tube chamber - packing sheet The tent can be used as: command tent, decontamination tent, emergency hospital site, common room, diving rescue tent, disaster site. The tent is suitable for every weather, places no to use. Due to the special structure of the gable roof the tent stays stable also with heavy snow loading. The fastest firebrigade tent keeps its optimal stability for a period of more than 48 hours without reinflation. Features: - practical carrying handles at every corner of the tent, to handle quickly - opening for heater fan - pressure control valve - ridge ventilation flaps for better air conditioning in the inside of the tent - material: robust, resistant, Nylon PU/Neoprene-coated, welded double seems throughout - four windows with insect screens - cords stretched along inside of roof, for suspending lights, infusion bottles, dividing walls, etc. - Extreme resistant floor Technical Data: Outer dimensions length 5m width 4,4m height 2,8m. Usable area: 20m ² length 5m, width 4m. Weight with packing sheet: approx. 90 kg. Packing dimensions: approx. 1.4 x 0.75 x 0.7 m Working pressure: 0.25 bar. Volume tubular frame: approx. 1650 l. Filling connectors: 3 ea, Type SF1. Pressure relief valves: ea, diagonal. Delivery includes: tent, carrying bag, outdoor suspension, tent pegs and repair kit.			X



923835



93603601



Art. No.	Article/Description	CI	CII	CIII
OTHER MATERIALS				
936065	ILLUMINATION SET TO AIR-TENT A lighting set contains 2 energy-saving neon tubes, each 18 W (corresponds to 200 W) and an additional socket. Service life approx 8000 hours. Can be joined to the supporting construction by Velcro strips. We recommend 2 set units per tent.			X
936070	AIR - BLOWER 230 V TO AIR-TENT Inflation device complete with filling hose. Can be also used for deflation, so the tent can be taken down in less time. Voltage: 230V/50 Hz; 0.96 kW. Capacity of blower: positive pressure 300 ml/bar, under-inflation 200 ml/bar. Blow power: 1960 l/min. Weighth: 7.8 kg.			X
DA1994	FIRST-AID KIT GALVO - ACIDS AND CAUTERIZATION The filling of this kit is a special arrangement for First-Aid of burns, cauterization caused through acids, alkalines, fumes and hot liquids (First-Aid for eye washing). This filling meets the requirements of chemical and galvanic industries. Dimension: 400x300x150 mm.	X		
DA2667	TABLE SET (WOOD) Consists of 1 table and 2 benches. 195 x 50 x 25 cm.	X		



936065



936070

Overview matrix Module C:

Below you will find a list of all the articles contained in the modules CI, CII and CIII, together with the recommended quantity of items for each product. Please bear in mind that, for the effective use of the modules CII and CIII, the products contained in module CI and modules CI and CII, respectively, should already be available.

Ord. No.	Designation	r.q.*			Ord. No.	Designation	r.q.*		
		CI	CII	CIII			CI	CII	CIII
	Blockage Material					MEASURING DEVICES			
672531	Warning sign "Toxic Substances"	2			409992	Adapter simultaneous test		1	
672532	Warning sign "Oxidising Substances"		2		40999205	Simultaneous test		1	
672535	Warning sign "General Danger"	2			409994	Simultaneous test set I		1	
672536	Warning sign "Toxic Substances"	2			409995	Simultaneous test set II		1	
672538	Warning sign "Fire Hazards"		2		410001	Gas detector ACCURO		1	
676200	Multi purpose stand	2	2		410012	Extension hose		1	
676250	Metal barrier support	8			410310072	Multi gas detector GasAlert Micro 5	1		
676255	Base plate	8			410310075	Multi gas detector GasAlert Micro		1	
676310	Barrier tape	3			41031050	Gas-detector array			1
908810	Sledge hammer	1			41133450	Infrared thermometer		1	

* recommended quantity

MBAT EQUIPMENT

Ord. No.	Designation	r.q.*		
		CI	CII	CIII
MEASURING DEVICES				
411338	Laser distance measuring device			1
41135103	Wind watch	1		
41137005	Universal indicator test stick	1		
918715	Oil test tapes	1		
PROTECTIVE CLOTHING				
142501	Chemical protection gloves	6		3
143240	Safety boots	6		3
285202	Chemical splash goggles	6		3
401300	ND-breathing mask	6		3
40492302	Multi purpose filter	6		3
40735001	Breathing apparatus Contour	3	3	
40892015	Compressed-air cylinder Comfort	3	3	
41064150	Chem-Tape	1		1
41070810	Disposable Coverall Tychem	6		3
411170	Long style overall, cotton		3	
41121005	Chemical protective suit VPS	3	3	
DB0352	Textil gloves (5 pairs)	1	1	
SEALING MATERIALS				
632530	Lashing belt	2		
911401	Drainblocker	1		
911530	Drain cover		2	
911750	Cellular rubber plate	1		
911821	Plastic sealing band	1		
911822	PTFE sealing tape	2		
912003	Sealing wedges	1		
912004	Sealing stoppers	1		
912041	Sealing compound Vetter		2	
912046	Pipe sealing		1	
912281	Leak sealing bandage LB 5-20		1	
912282	Lead sealing bandage LB 20-48		1	
912294	Leak sealing bag		1	
912370	Compact Gully-sealing bag system	2		
912380	Leck stop special sealing device	2		
912400	Set leak sealing lance		1	
D01798	Screw clamp	2		
COLLECTION CONTAINERS				
902640	Self-erecting tank 3000 l	1		
902670	Carrying bag to 3000 l tank	1		
902840	Self-supporting water tank, 5000 l		1	
902870	Carrying bag to 5000 l tank		1	
902876	Closed water storage container		1	2
902882	Carrying bag to water container		1	2
902980	Flange	1	2	2

* recommended quantity

Ord. No.	Designation	r.q.*		
		CI	CII	CIII
COLLECTION CONTAINERS				
903050	Cover 5x8 m	1		
904254	Chemical resistant container			3
904310	Collecting tube	1		
904311	Cover for collecting tube	1		
904350	Bucket	2		
904356	Stainless steel bucket	2		
904430	Interception			2
904520	Blown PE film tubing			1
910520	Drainage gully		1	
910530	Funnel			1
910640	Oil collector funnel		1	
937000	Spill bag	3		
PUMPS				
912608	Submersible acid pump			1
912612	Acid decanting pump			1
912648	Pump strainer			1
912650	Barrel pump			1
912653	Spare tube for barrel pump			1
912656	Universal hose, 10 m			1
912657	Earthing cable			1
912665	Quick-acting stop-cock S			1
912815	Hand-operated diaphragm pump		1	
912853	Membrane pump, pneumatically operated	1		
912877	Complete suction attachment		1	
912879	Hazmat hose pump		1	
912879001	Standard coupling accessories		1	
912891	Flat suction attachment		1	
EARTHING MATERIAL				
315841	Earthing conductor		1	
915012	Earthing screw clamp brass		2	
915013	Earthing cable, 10 m		4	4
915013001	Earthing cable, 5 m		4	4
915013002	Earthing lattice		2	
915016	Earthing clamp		2	2
915020	Earthing rod		4	4
915023	Earthing system		1	1
ELECTRICAL MATERIAL				
302920	Hand searchlight	2	2	
302927	Mounting bracket for 302920	2	2	
315484	Cable reel, 30 m, 5 x 2,5, EX		1	1
315494	Cable reel, 30 m, 3 x 2,5, EX		1	1
315591	Cable reel, 30 m, 5 x 2,5, CEE		2	2
317277	Transition cable		2	2

Ord. No.	Designation	r.q.*		
		CI	CII	CIII
317286	Transition cable		2	2
TOOLS				
908400	Spade		1	
908520	Mattock		1	
909220	Crowbar		1	
909410	Pliers		1	
909711	Tool kit		1	
909721	Wrench set			1
910412	Scoop			1
HOSES				
912714	Corrugated stainless steel hose			3
912731	Polypal plus hose, 5 m		4	4
912732	PVC suction and pressure hose		4	4
912736	Polypal plus hose, 10 m		2	2
912929	Pressure hose "Oel-favorit"		4	2
FITTINGS				
914080	Blind cap		2	
914082	Welsh plug		2	
914099	Adapter, VK80 – VK50, VA		1	
914102	Connection unit, MK50/MK50		1	
914103	Connection unit, VK50/VK50		1	
914106	Adapter, MK50/VK50		1	
914122	Adapter, MK50 – C-Storz, MS		2	
914123	Adapter, VK50 – C-Storz, MS		2	
914203	Adapter, MK80 – VK50, VA		1	
914204	Adapter, VK80 – MK50, VA		1	
914220	Inspection glass		1	1
914387	Flange adapter, DN32 – VK50, VA			1
914388	Flange adapter, DN50 – VK50, VA			1
914389	Flange adapter, DN80 – VK50, VA			1
914390	Flange adapter, DN100 – VK50, VA			1

* recommended quantity

Ord. No.	Designation	r.q.*		
		CI	CII	CIII
FITTINGS				
914395	Head cap screw			2
914500	C-safety suction tube		1	
914508	Acid suction pipe		1	
914600	C-safety discharging tube		1	
914635	Outlet tube		1	
914699	Suction strainer		1	
914713	Shut-off cock		3	1
914801	C-shut down valve		2	
OTHER MATERIALS				
142995	Boot-Jack		1	
285275	Power Safe, chemical agents binder	2		2
662110	High pressure cleaner			1
904262	Salvage barrel			1
904275	Chlorine emergency equipment			1
904530	PE-Sack			20
904601	Polystar 100 GE pulse gen.			1
904605	Polystar 40 D impulse			1
908300	Scoop shovel	1		
910050	Rubber plastic hammer	1		
910810	Oil binding shovel	1		
912856	Transport barrel			1
912857	Filling device			1
91285901	Fittings for filling device			1
923835	High quality industrial cleaner			1
933081	Hoisting cable			1
93603601	Air-tent			1
936065	Illumination set to air-tent			3
936070	Air-compressor to air-tent			1
DA1994	First aid kit	1		
DA2667	Table set (wood)		2	

MBAT EQUIPMENT

Model solutions for contaminant combat equipment:



Hazmat vehicle "SSTF on MAN" for the Tulln Fire Brigade Training School.

This vehicle includes an extensive range of equipment (CIII). Protective clothing, reducers, sealings, etc. allow the handling of even major incidents.



Tank tender with hazardous material combat equipment for Taiwan

This vehicle not only includes contaminant combat equipment (A, B, CII), but also an air supply system for the control room and an air supply unit (compressor) for breathing apparatus.



Rescue and hazardous material combat vehicle with vacuum unit for the Boehringer Works Fire Brigade, Ingelheim / Germany

In addition to an extensive range of equipment (CIII), a vacuum unit has been incorporated into this vehicle.

DECONTAMINATION EQUIPMENT

- Decontamination = reduction and/or elimination of contamination
- Contamination = pollution of persons, items, rooms or the environment by radioactive, biological or chemical substances

DECONTAMINATION starts with the WASHING OF HANDS

The selection of the appropriate means of decontamination depends on the type of pollution:
A-B-C and/or dusty or liquid.

Particularly important! The shorter the respective surface's exposure time, the smaller the damage caused by the agent!

Dry decontamination:

- Main component: towels
- Facilitates the protective suits' follow-up treatment in the breathing apparatus workshop
- For minor contamination

Wet decontamination :

- Main component: water
- Used water must be collected and disposed of



Measuring technology plays a vital role, as contamination cannot always be detected without the use of the appropriate devices (especially in the case of radioactive contamination).



ROSEBAUER MULTI-STAGE DECONTAMINATION EQUIPMENT CONCEPT

As in the case of contaminant combat equipment, it is first necessary to define the danger profile with which the fire brigade is confronted. A corresponding module is available for each operational purpose and dimension.

Note: The modules specified herein only include equipment that is deemed appropriate for the decontamination of the crew (fire brigade) – the decontamination of larger numbers of people requires special precautions.



HYGIENE SET



- For rough cleansing at the operation scene
- Fits into a plastic box (facilitates retrofitting in vehicles)
- Uses standard connections and systems

919500

KIT FOR PERSONAL CLEANING

This set includes in a small box (fits in almost every fire fighting truck) all necessary things for a easy and fast decontamination on side of the intervention:

- 5m hoses with Storz D-Couplings
- dividing breeching C - D-D
- nail-brush
- hand-brush
- limited use protection clothing
- paper towels
- garbage bags
- liquid soap



DECONTAMINATION

DRY DECONTAMINATION SET

DRY DECONTAMINATION SET



- Facilitates simple cleansing by means of special towels and binding agents (oil binder and/or chemicals binder)

Advantages:

- reduced expenditure of time
- simple handling
- - low amounts of waste

Art. No.	Article/Description
903050	COVER PVC COMPLAN 650 g/m² WITH EYES See module C, page 19
904321	TRAY, STAINLESS STEEL The trays are suitable for collecting and storing spilled chemicals, oil, acids and other liquids, but also sand, oil binding agents etc. Material: stainless steel. The trays are conical in shape, and can be stacked. They come with 2 carrying handles for ease of transport. LxWxH = 610x410x180 mm, weight: 8 kg.
D03529	UNIVERSAL ABSORBEND MAT HEAYV WEIGHT 25 x 30 cm, 100 pillows
285275	POWER SAFE CHEMICAL AGENTS BINDER See module C, page 11
285202	CHEMICAL SPLASH GOGGLES "HELICO CHEM" Certified as to the new European standard EN 166 (replaces BS 2092 Grade 1). Adjustable flexible headband. Specially suitable for use in the chemical industry for ideal protection against fine dust, chemical mists and liquids, therefore without ventilation. Comfortable to wear in connection with optical glasses. Weight: 0.03 kg.
142501	PETROBEN CHEMICAL PROTECTION GLOVES, 350 mm long
143240	CHEMICAL RESISTANT SAFETY BOOTS "PUROFORT", COLOUR GREEN
41070810	DISPOSABLE COVERALL TYVEK-PRO.TECH, MODEL PRO-CHEM I-F, COLOUR: ORANGE See module C, page 16



904321



420089



420089

N EQUIPMENT

Art. No.	Article/Description
41064150	CHEM-TAPE FOR CHEMICAL PROTECTION See module C, page 6
401300	BREATHING MASK PANORAMA NOVA RA-EPDM See module C, page 7
40492302	MULTIPURPOSE FILTER 103 A2B2E2K2P3 WITH CONNECTION IN ACCORDANCE WITH EN 148-1
302920	ELECTRONIC HAND SEARCHLIGHT CEAG SEB 8 L See module A, page 8
302927	MOUNTING BRACKET FOR SEARCHLIGHT SEB 8 L, 12/24 V
D00860	BAG FOR PROTECTIVE SUIT, VOL. 1000 l, 90 mm Unit: 50 pc.
904530	PE SACK 240 l, 0,1 mm



Overview of the Dry Decontamination Set module

The following matrix provides an overview of the products, which we have incorporated into the "Dry Decontamination Set", including the quantity of items that we recommend for the equipping of any fire brigade unit:

Ord. No.	Designation	r.q.*	Ord. No.	Designation	r.q.*
903050	Cover PVC Complian	1	41070810	Disposable coverall	3
904321	Tray	3	41064150	Chem-Tape	1
D03529	Absorbent mat	2	401300	ND-breathing mask	3
285275	Power Safe chemical agents binder	3	40492302	Multipurpose filter	3
285202	Chemical splash goggles	3	302920	Hand searchlight	2
142501	Chemical protection gloves	3	302927	Mounting bracket for 302927	2
143240	Chemical safety boots	3	D00860	Bag for protective suit	2
			904530	PE sack	20

* recommended quantity

DECONTAMINATION SET I



- Focuses: tarpaulins, inflatable basins, decontamination circle (stainless steel ring with nozzles)
- **Important: adequate self-protection**

DECONTAMINATION SET II



- Ideal for medium-sized fire brigade units
- Focuses: immediate response tent, water supply pumps, decontamination showers, hot water treatment, emergency tanks

DECONTAMINATION SET III



- Includes all articles that might be required for the decontamination of several crews wearing protective suits
- Focuses: cleansing agents, showers, cleansing device, water vacuum unit, spare clothing (after body cleansing)

All the articles required for the decontamination process are listed below. For better understanding, the related decontamination module is specified for each article.

N EQUIPMENT

Art. No.	Article/Description	DI	DII	DIII
137875	SOCKS, OLIVE-GREEN Sizes: 1(40/41), 2(42/43), 3(44/45), 4(46/47)			
142501	PETROBEN CHEMICAL PROTECTION GLOVES 350 mm long See module A, page 6	X		X
143240	CHEMICAL RESISTANT SAFETY BOOTS "PUROFORT" COLOUR GREEN See module A, page 6	X		X
285202	CHEMICAL SPLASH GOGGLES "HELICO CHEM"			X
315591	CABLE REEL, 1 CEE 400V, 3 SCHUKO TYPE SOCKETS WITH 30m GIFAPLAST CABLE 5x2.5 AND CEE PLUG See module C, page 24			X
401300	BREATHING MASK PANORAMA NOVA RA-EPDM See module A, page 7			X
40492302	MULTIPURPOSE FILTER 103 A2B2E2K2P3 WITH CONNECTION IN ACCORDANCE WITH EN 148-1	X		X
41064150	CHEM-TAPE FOR CHEMICAL PROTECTION See module A, page 6	X		X
41070810	DISPOSABLE COVERALL TYVEK-PRO.TECH, MODEL PRO-CHEM I-F, COLOUR: ORANGE See module C, page 18	X		X
411157	TRAINING SUIT MADE OF 100 % COTTON, COLOUR RED, CONSISTING OF SWEATER AND TROUSERS			X
411159	GYM SHOES MADE OF SYNTHETICS			X
41133450	TEMPERATURE MEASUREMENT INFRARED THERMOMETER See module C, page 15			X
41135103	ADC Summit Wind watch See module A, page 4	X		
41137005	UNIVERSAL INDICATOR TEST STICK See module A, page 6	X		
662110	HIGH PRESSURE CLEANER P 150-15 INCLUDING ACCESSOIRES See module C, page 29		X	
672535	WARNING SIGN 400mm SCOTCHLITE "GENERAL DANGER" See module C, page 13	X		
676200	MULTI-PURPOSE STAND FOR WARNING SIGNALS See module A, page 4	X		
676250	METAL BARRIER SUPPORT See module A, page 4	X		



143240



143240



411159

DECONTAMINATION SET

Art. No.	Article/Description	DI	DII	DIII
676255	BASE PLATE FOR BARRIER SUPPORT See module A, page 4	X		
676310	EUROPE BARRIER TAPE See module A, page 4	X		
706000	PLASTIC CAN ACC. TO DIN 14452, 20 kg, EMPTY		X	
902875	SELF-ERECTING CLOSED STORAGE CONTAINER / 3000 I, QUAL. B 110		X	
902880	CARRYING BAG FOR WATER CONTAINER 3000 I		X	
903050	COVER PVC COMPLAN 650 g/m² WITH EYES See module C, page 19	X	X	
904254	CHEMICAL RESISTANT CONTAINER / 100 I WITH COVERING See module C, page 19		X	
904356	STAINLESS STEEL BUCKET, 15l See module C, page 20			X
904530	PE SACK 240 I, 0,1 mm		X	
908810	TOOL KIT SPARK RESISTANT See module C, page 25	X		
909711	TOOL KIT SPARK RESISTANT See module C, page 25		X	
918715	OIL TEST TAPES 1 CARTON See module C, page 16		X	
936016	DECONTAMINATION SHOWER II Inflatable shower cabinet, which consists of an inflatable supporting construction, a shower cabinet, an integrates basin, 9 jets and a drainage. Inlet (red) and outlet (green). Immediate assembly - the shower puts itself up. Easy to use due to a low weight and small dimensions when packed. Contaminated water used for shower is not splashed on the floor. Inflated using electric blower or compressed-air bottle in connection with a pressure reducer. Shower with integrated drip tub. Exterior dimensions (L x W x H): 450 x 250 x 270 cm Air capacity, supporting construction: 1500 l. Operational overpressure: 0.25 bar Water consumption: approx. 50l/min Dimensions when packed: 120 x 80 x 20 cm. Weight: 49 kg.		X	
93603601	AIRTENT RB 5x4 See module C, page 31		X	



904254



936016

N EQUIPMENT

Art. No.	Article/Description	DI	DII	DIII
936048	ADAPTER TARP To join together two tents of the same type of construction		X	
936055	DECONTAMINATION TUB I Inflatable deco tub to decontaminate persons or devices. Inner tub with Velcro fastening - for easy cleaning. Pressure control valve, 2 filling valves. Inflated using electric blower or compressed-air bottle in connection with a pressure reducer. Exterior dimensions (L x W x H): 250 x 250 x 30 cm Dimensions of inner tarpaulin (L x W): 190 x 190 cm Air capacity, supporting construction: 800 l. Operational overpressure: 0.25 bar Dimension when packed: 130 x 70 x 8 cm. Weight: 15 kg	X		
936056	DECONTAMINATION TUB II Suitable for decontamination of devices, tools etc. or preliminary decontamination of personnel. Ensures containment of contaminated water. Comes with an inner tub with Velcro fastening, for ease of cleaning. The tub can be inflated under low pressure, by means of a compressed air cylinder, that is available at extra charge. Pressure relief valve is fitted. Exterior dimensions: 450 x 250 x 30 cm Dimensions of the inner tarpaulin: 390 x 190 cm Weight: 24 kg.	X		
936064	MOBILE HEATING DEVICE FOR AIRTENT A mobile heating device with heat exchanger and a separate oil burner (operates by fuel oil or diesel EL). Very low waste gas values a 100 % clean heat. With automatic ignition, burner automatic, flame monitoring and thermostat. Heating capacity: 22kW Air capacity: 1100 m ³ /h Fuel consumption: max. 2.3 kg/h Tank capacity: 40 l Electric supply: 230V/50Hz/400 W Weight: 58 kg Dimensions (L x W x H): 125 x 49 x 69 cm Comes with a room thermostat and 4 m spiral heating hose.		X	
936065	ILLUMINATION SET TO AIRTENT See module C, page 32		X	X



936048



936055



936056

DECONTAMINATION SET

Art. No.	Article/Description	DI	DII	DIII
936067	DIVIDING TARPAULIN FOR AIRTENT The tent can be divided into compartments by dividing tarpaulins.		X	X
936070	AIR - COMPRESSOR 230 V TO AIRTENT See module C, page 32	X		
936081	DEKON - CIRCLE This mobile decontamination shower is to clean a person wearing a protective suit in a minimum of time. 8 jets can be dismantled in 2 pieces and 1 handle	X		
936082	DECON BRUSH WITH 6m CONNECTING HOSE AND GEKA COUPLING Designed for preliminary cleansing of persons wearing protective clothes	X		
936084	MOBILE WATER HEATING HOT BOX 200 Mobil water heating; Operates with diesel or fuel oil EL; Temperature range 30° - 70° C; With integrated safety thermostat incl. built-in Addmix-system for cleansers; supply capacity: 950 - 1400l/h.		X	
936086	WASTE WATER PUMP WITH FLOAT SWITCH Fully automatic pump. To pump out the decontamination-water into a suitable collecting tank; inclusive 10 m hose.	X		
936200	WATER SUPPLY PUMP, TYPE JCRM 15H, 1,1 kW, 230 V, 50 HZ Capacity: Max 4.8 m ³ /h Height: max 55 m approx. 600 x 500 x 380 mm		X	



936067



936081



936082



936082

N EQUIPMENT

Art. No.	Article/Description	DI	DII	DIII
D00865	MOBIL PRESSURE SPRAYING EQUIPMENT TYPE 10 SP	X		X
D00868	POLYETHYLENGLYCOL PEG 400		X	
D02291	PLASTIC-PALLET FOR DECO TUB 800 x 1200 x 145 mm COLOR RED	X		X
D02330	MULTI PURPOSE HOSE 3/4", 10 m		X	
D02332	MULTI PURPOSE HOSE 3/4", 5 m		X	
D02335	ADAPTOR, INLET STORZ C - OUTLET 3 GEKA		X	
D02336	ADAPTER MADE OF BRASS		X	
D02339	TOWEL 67 x 140 cm COTTON		X	
D02340	GARBAGE COLLECTION STATION FOR 70/120 l, GARBAGE BAGS	X		X
D02369	UNIVERSAL CLEANSING SUSPENSION, 5 kg		X	X
D02901	ADAPTER C STORZ – GEKA-COUPPLING	X	X	
DA2051	CLEANING MATERIAL IN BOX		X	
DA2667	TABLE SET (WOOD) Consists of 1 table, 2 benches. 195 x 50 x 25 cm.		X	X



936086

Overview matrix of decontamination equipment

For a better overview, the following matrix shows all the decontamination articles, together with the quantities recommended for a fire brigade unit:

Art. No.	Designation	r.q.*			Art. No.	Designation	r.q.*		
		DI	DII	DIII			DI	DII	DIII
137875	Socks			9	918715	Oil test tapes	1		
142501	Chemical protection gloves	6		3	923805	Vacuum cleaner		1	
143240	Safety boots	6		3	936016	Decontamination shower II		1	
285202	Chemical splash goggles			3	93603601	Air tent		1	1
315591	Cable reel			2	936048	Adapter tarp			1
401300	ND-breathing mask			3	936055	Decontamination tub I	1		
40492302	Multipurpose filter	6		3	936056	Decontamination tub II	1		
41064150	Chem-Tape	1		1	936064	Mobile heating device		1	
41070810	Disposable coverall	6		3	936065	Illumination set to air tent		3	3
411157	Trainings suit			9	936067	Dividing tarpaulin		1	1
411159	Gym shoes			9	936070	Air-compressor	1		
41133450	Infrared thermometer			1	936081	Deco-circle	1		
41135101	Wind watch	1			936082	Deco-brush	1		
41137005	Universal indicator test stick	1			936084	Mobile water heating hot box		1	
662110	High pressure cleaner		1		936086	Waste water pump	1		
672535	Warning sign	2			936200	Water supply pump		1	
676200	Multi purpose stand	2			D00865	Pressure spraying equipment	1		1
676250	Metal barrier support	8			D00868	Polyethylenglycol		40	
676255	Base plate	8			D02291	Plastic pallet	1		1
676310	Europe barrier tape	3			D02330	Multi purpose hose, 10 m		3	
706000	Plastic can		2		D02332	Multi purpose hose, 5 m		4	
902875	Storage container		1		D02335	Adapter		1	
902880	Carrying bag for container		1		D02336	Adapter made of brass		1	
903050	Cover PVC Complian	2	2		D02339	Towel			9
904254	Chemical resistance container			2	D02340	Garbage collection	1		1
904356	Steel bucket			2	D02369	Cleansing suspension		1	1
904530	PE sack		20		D02901	Adapter	2	2	
908810	Sledge hammer	1			DA2051	Cleaning material box		1	
909711	Tool kit spark resistant		1		DA2667	Table set (wood)		2	2

* recommended quantity

NEW EQUIPMENT

Model solutions for decontamination equipment:



Swap body vehicle - decontamination for Lower Austria

In this project, an entirely mobile and autonomous decontamination system has been implemented. The superstructure options (Decontamination Set III) cover the whole range of accidents.



Decontamination semi-trailer for the emergency services of the city of Linz

In this vehicle, the "decontamination line" consists of four small cabins installed in the container centre. In addition, a small recreation room has been integrated.



Breathing Air-Vehicle, which can split of the Decon-Unit

In this vehicle, the "decontamination line" consists of four small cabins installed in the container centre. In addition, a small recreation room has been integrated.



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