



# CBRN FILTER

**MIRA<sup>®</sup>**  
SAFETY

# NBC-77 SOF CBRN FILTER CANISTER

Type: **A2B2E2K2HgSXP3 D R REACTOR**



The NBC-77 SOF filter canister in combination with a full-face mask, mouthpiece assembly or PAPR provides reliable protection of air passages against a wide range of harmful and toxic substances including all known CBRN agents. Filters are produced with standard round threads according to STANAG 4155 (EN 148-1) - Rd 40x1/7" or GOST 8762-75 (40x4mm).

Filter components are made of hard plastic. It provides a very robust product that is extremely durable against shock and impact damage in operational use.

## TECHNOLOGY FOR PROTECTION, UTILITY & COMFORT

### TECHNICAL DATA

Diameter	110 mm
Height	85 mm
Weight	335 g±5%
Storage time	20 years (factory sealed)

### TYPE AND CLASS

A2 - Organic gases and vapors	SX, CG, CK, PS
B2 - Inorganic gases and vapors	P3 - Solid particles and liquid aerosols
E2 - Acid gases and vapors	D - dust
K2 - Ammonia and amines	R - reusable
Hg - Mercury vapors	REACTOR - radioactive iodine

### BREATHING RESISTANCE IN PA

@ flow rate 30 l/min.		@ flow rate 95 l/min.	
EN	NBC-77 SOF	EN	NBC-77 SOF
260	<140	980	<600

### PARTICLE FILTER EFFICIENCY @ FLOW RATE 95 L/M

	EN	NBC-77 SOF
Sodium Chloride NaCl (S)	99.99+	99.99+
Paraffin oil (L)	99.99+	99.99+

**NOTE:**

- 1) Requirements of European Standard EN 14387+A1
- 2) The filter was tested on dolomite dust clogging
- 3) Radioactive iodine and its organic compound - methyl iodide<sup>131</sup> acc. to standard DIN 58621



# NBC-77 SOF

## A2B2E2K2HgSXP3 D R REACTOR

### APPLICATION:

The filter canister in connection with a suitable respirator or PAPR provides protection against solid and liquid particles, pepper spray (OC), smoke-producing substances, radioactive particles, bacteria and rickettsia, fungi, toxins, viruses, riot control agents (Lachrymators, Sternutators, Vomiting agents), blister agents (Vesicants), choking agents, blood agents, nerve agents, incapacitants, herbicides, pesticides and TIC, such as bromoacetone, CS, CR, CN, CNC, CNS, CA substances, organic compounds of arsenic - diphenyl- dichloroarsine - CLARK I (DA), diphenylcyanoarsine - CLARK II (DC), adamsite (DM), diphenyldichloroarsine (DA), ethyldichloroarsine (ED), methyldichloroarsine (MD), mustard gas (H), sulphur mustard gas (HD), T-mustard gas, Q-mustard gas, nitrogen mustard gases (HN1, HN2, HN3), lewisite (L), mixed mustard gas (H-L), phosgene oxime (CX), phosgene (CG), diphosgene(DP), chloropicrin (PS), hydrogen cyanide (AC), cyanogen chloride (CK), arsine (SA), G-agents: sarin (GB), cyclosarin (GF), soman (GD), tabun (GA), IVA (GV), V-agents: VX, VR, VE, VG (amiton), VM and toxic industrial chemicals, such as fumes of organic or inorganic acids, hydroxides, organic solvents with a boiling point above 65°C, ammonia, amines, inorganic and acid gases, agricultural chemical combustion gases, other toxic substances, e.g., benzene, toluene, vinyl chloride, fluorine, hydrogen fluoride, sulphur oxides, chloroacetic acid, aldehydes, mixtures of inorganic acids and organic substances, mercury vapors, radioactive iodine and its organic compounds, etc.

### LIFETIME:

Breakthrough time of a filter is tested according to EN 14387+A1 at 70% humidity and a flow rate of 30 l/min, which is equivalent to the volume of air per minute used by an average person carrying out medium-heavy work. The approximate lifetime (usage time) of a filter may, under normal conditions, be calculated by comparing the concentration at the workplace and the minimum Dynamic Adsorption Capacity (DAC) of the filter.

$$T = \frac{DAC \times 1000}{AF \times C}$$

- T** Approximate usage time in minutes  
**DAC** Dynamic Adsorption Capacity in grams (see table)  
**AF** Airflow (air consumption) in l/min (in normal conditions 30 l/min)  
**C** Concentration of toxic gas in mg/l

TESTING GAS	CONCENTRATION OF TESTING GAS		BREAKTHROUGH TIME IN MINUTES EN REQUIREMENT	NBC-77 SOF	DAC IN GRAMS NBC-77 SOF		
	PPM	MG/L					
A2	Cyclohexane	C6H12	5000	17.50	35	39	20.475
B2	Chlorine	Cl2	5000	15.00	20	45	20.250
	Hydrogen Sulphide	H2S	5000	7.10	40	>80	>17.400
	Hydrogen cyanide	HCN	5000	5.60	25	50	8.400
E2	Sulphur dioxide	SO2	5000	13.30	20	25	9.975
K2	Ammonia	NH3	5000	3.53	40	50	5.250
Hg	Mercury	Hg	-----	13.00 mg/m3	100 hours	>170 hours	>3.900
SX	Cyanogen chloride	CICN	2500	6.28	20	25	4.710
	Chloropicrin	CCl3NO2	5000	33.55	20	44	44.286
	Phosgene	COCl2	5000	20.24	20	>77	>47.058
REACTOR	Methyl iodide	CH I3			2 hours	>2 hours	



### STORAGE AND MAINTENANCE

The filters are sealed in plastic bags by the manufacturer. Store the filters unopened in a clean place at a constant temperature between -5 to +30°C with relative humidity below 80%. Sealed filters tolerate conditions of -30 to +50°C with RH below 95%. The storage period (month and year) for filters is marked on the filter label. Do not try to regenerate the filters. Never clean the filters with compressed air or compressed water.



### DISPOSAL

After use, the filters are special refuse. Make sure that they are disposed of in accordance with current waste treatment regulations based on the substance(s). If the product is to be disposed of, it should be dismantled from the respirator and disposed of as solid waste. Please see local authority regulations for disposal advice and locations.