



# Supplementary Materials: Low-Dose Benzene Exposure Monitoring of Oil Refinery Workers: Inhalation and Biomarkers

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BIOLOGICAL MONITORING  
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QUESTIONNAIRE



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SAMPLE N° \_\_\_\_\_

SAMPLING DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Personal data and worker employment data:**

FIRST NAME: \_\_\_\_\_ LAST NAME: \_\_\_\_\_ DATE OF BIRTH: \_\_\_\_/\_\_\_\_/\_\_\_\_

GENDER (M o F) \_\_\_\_\_ BODY WEIGHT (kg) \_\_\_\_\_ HEIGHT (cm) \_\_\_\_\_

TASK: \_\_\_\_\_ AREA: \_\_\_\_\_

INDIVIDUAL PROTECTION DEVICES CURRENTLY IN USE:

NO ☐

YES ☐ SPECIFY WHICH: ☐ GLOVES ☐ MASK ☐ BOOTS ☐ WAXED SUIT/LAB COAT  
☐ OTHER (TO SPECIFY): \_\_\_\_\_

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**Unnecessary habits and other exposure conditions:**

➤ SMOKE: ☐ NO ☐ YES IF YES, TO SPECIFY THE NUMBER OF CIGARS/CIGARETTES DURING THE WORKSHIFT  
N. \_\_\_\_\_ TYPE \_\_\_\_\_ FOR A TOTAL PER DAY OF N. \_\_\_\_\_ APPROXIMATELY.

➤ PASSIVE SMOKE EXPOSURE: ☐ NO ☐ YES

➤ STOPOVER IN FUEL REFUELING STATIONS (in the last 48 hours): ☐ NO ☐ YES

IF YES TO SPECIFY: ☐ REFUELING SERVED ☐ SELF REFUELING ☐ ONLY STOPOVER

FUEL TYPE: ☐ PETROL ☐ DIESEL ☐ LPG ☐ METHANE

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**Food intake (in the last 24 hours):**

• **Generic foods (with possible presence of sorbic acid)**

<input type="checkbox"/> FRESH AND AGED CHEESES	<input type="checkbox"/> YOGURT	<input type="checkbox"/> OILS (excluding olive oil)
<input type="checkbox"/> MARGARINE	<input type="checkbox"/> ALCOHOL-FREE DRINKS (FRUIT JUICES)	<input type="checkbox"/> MAYONNAISE
<input type="checkbox"/> JAMS	<input type="checkbox"/> FRESH PASTA (TORTELLINI, RAVIOLI, GNOCCHI)	<input type="checkbox"/> PACKAGED DRY PASTA
<input type="checkbox"/> PASTRY PRODUCTS/BISCUITRY	<input type="checkbox"/> WHITE WINE	<input type="checkbox"/> RED WINE
<input type="checkbox"/> SPARKLING WINE		

• **Specific foods (containing sorbic acid as indicated by the manufacturer):**

<input type="checkbox"/> PROVOLONE DOLCE AURIOCCHIO	<input type="checkbox"/> PROVOLONE PICCANTE AURIOCCHIO	<input type="checkbox"/> KETCH-UP MATO MATOKRAFT
<input type="checkbox"/> FORMAGGIO CAMOSCIO D'ORO	<input type="checkbox"/> MAIONESE KRAFT LEGGERA	<input type="checkbox"/> MAIONESE SALVAURO
<input type="checkbox"/> MAIONESE KRAFT	<input type="checkbox"/> MARGARINA COOPVALLE OMEGA 3	<input type="checkbox"/> VALLE LEGGERAVALLE-BURROMARGARINA
<input type="checkbox"/> SALVAURO	<input type="checkbox"/> GNOCCHI FRESCHI GIOVANNI RANA	<input type="checkbox"/> GNOCCHI RIPIENI GIOVANNI RANA
<input type="checkbox"/> GNOCCHI SALVAURO	<input type="checkbox"/> GNOCCHI COOPARANCATA E SELUNGA	<input type="checkbox"/> ARANCATA AMSURA
<input type="checkbox"/> ARANCATA AMARA COOP	<input type="checkbox"/> ARANCATA SENZA ZUCCHERO COOP	<input type="checkbox"/> BIRTA POMPELMO SALVAURO
<input type="checkbox"/> SCHWEPPES GUSTO LIMONE	<input type="checkbox"/> SCHWEPPES GUSTO ARANCIO	<input type="checkbox"/> PEPSI TWIST LIGHT
<input type="checkbox"/> PEPSI TWIST	<input type="checkbox"/> ARANCATA SANBENEDETTO	<input type="checkbox"/> ORANSCODA
<input type="checkbox"/> LEMON SODA	<input type="checkbox"/> BACARDI BREZZER	

• **Taking medications (in the last 24 hours):**

☐ LAEVLAC (ROCHE S.p.A.)

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**Environmental exposure levels (living and working environment):**

➤ HOME LOCATED IN AN AREA:

☐ MAINLY RURAL ☐ WITH MEDIUM-INTENSIVE TRAFFIC ☐ WITH HIGH-INTENSITY TRAFFIC

➤ TRAVEL HOME-WORKPLACE

☐ TRANSPORTATION (CAR, MOTORCYCLE OR PUBLIC) \_\_\_\_\_ ☐ TIME (MIN.) \_\_\_\_\_ ☐ DISTANCE (km) \_\_\_\_\_

➤ EXTRA-WORKING ACTIVITIES CARRIED OUT THE PREVIOUS DAY OR THE SAME DAY OF THE URINE COLLECTION: \_\_\_\_\_

HAVE BEEN USED CHEMICAL SUBSTANCES ☐ YES ☐ NO IF YES TO SPECIFY WHICH: \_\_\_\_\_

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The employee  
\_\_\_\_\_

BIOLOGICAL MONITORING OF THE PROFESSIONAL EXPOSURE TO BENZENE

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**Figure S1.** Questionnaire to assess the non-occupational exposure to benzene confounding factor.