**British rubber and cable industry cohort: 49-year mortality follow-up**

Damien M. McElvenny1, William Mueller1, Peter Ritchie1, John W. Cherrie1,2, Mira Hidajat3, Andrew J. Darnton4, Raymond Agius5, Frank de Vocht3\*

1Research Division, Institute of Occupational Medicine, Edinburgh, UK

2Institute of Biological Chemistry, Biophysics and Bioengineering, Heriot Watt University, Edinburgh, UK

3Population Health Sciences, Bristol Medical School,University of Bristol, Bristol, UK

4Statistics and Epidemiology Unit, Health and Safety Executive, Bootle, UK

5Centre for Occupational and Environmental Health, Centre for Epidemiology, School of Health Sciences, The University of Manchester, Manchester, UK

**Online Supplementary Materials**

**Table 1.** ICD Disease Codes used for the SMR analysis.

|  |  |
| --- | --- |
| **Cause of death**  | **n** |
| All causes |  |
|  Including missing cause of death | 34,181 |
|  Excluding missing cause of death | 32,242 |
| All neoplasms*(ICD 7/8/9: 140-239; ICD 10: C00-D48)* | 9,227 |
| All causes excl neoplasms *(ICD 7/9: 01-139, 240-999; ICD 10: A00-B99, D50-Z99)* | 23,025 |
| All malignant neoplasms*(ICD 7: 140-205; ICD 8: 140-207; ICD 9: 140-208; ICD 10: C00-C97)* | 9,101 |
|  Buccal cavity and pharynx *(ICD 7/9: 140-149; ICD 10: C00-C14)* | 89 |
|  Nasopharynx  *(ICD 7: 146; ICD 8/9: 147; ICD 10: C11)* | 6 |
|  Larynx *(ICD 7/9: 161; ICD 10: C32)* | 62 |
|  Oesophagus  *(ICD 7/9: 150; ICD 10: C15)* | 333 |
|  Stomach  *(ICD 7/8/9: 151; ICD 10: C16)* | 768 |
|  Colon  *(ICD 7/8/9: 153; ICD 10: C18)* | 569 |
|  Rectum and rectosigmoid junction *(ICD 7/8/9: 154; ICD 10: C19-C21)* | 407 |
|  Liver  *(ICD 7: 155; ICD /8/9: 155-156; ICD 10: C22-C24)* | 122 |
|  Pancreas *(ICD 7/8/9: 157; ICD 10: C25)* | 328 |
|  Nose *(ICD 7/8/9: 160; ICD 10: C30)* | 7 |
|  Trachea, bronchus and lung  *(ICD 7/8: 162; ICD 9: 162, 165.8 ICD 10: C33-C34)* | 3,380 |
|  Prostate  *(ICD 7: 177; ICD 8/9: 185; ICD 10: C61)* | 885 |
|  Bladder  *(ICD 7: 181; ICD 8/9: 188; ICD 10: C67)* | 417 |
|  Kidney and other urinary organs  *(ICD 7: 180; ICD 8/9: 189; ICD 10: C64, C68)* | 167 |
|  Brain *(ICD 7: 193; ICD 8/9: 191; ICD 10: C71)* | 106 |
|  Lymphatic and haematopoietic tissue:*(ICD 7: 200-206; ICD 8: 200-207; ICD 9: 200-208; ICD 10: C81, C83-C85, C90-C95)* | 462 |
|  Hodgkin’s disease*(ICD 7/8/9: 201; ICD 10: C81)* | 19 |
|  Multiple Myeloma  *(ICD 7/8/9: 203; ICD 10: C90)* | 105 |
|  Leukaemia  *(ICD 7: 204; ICD 8: 204-207; ICD 9: 204-208; ICD 10: C91-C95)*  | 195 |
|  Non-Hodgkin’s lymphoma  *(ICD 7: 200, 202, 205; ICD 8/9: 200, 202; ICD 10: C83-C85)* | 143 |
| Endocrine nutritional and metabolic diseases*(ICD 7: 250-289; ICD 8/9: 240-279; ICD 10: E00-E90)* | 308 |
|  Diabetes mellitus  *(ICD 7: 260; ICD 8/9: 250; ICD 10: E10-E14)* | 263 |
| Diseases of circulatory system *(ICD 7: 400-468; ICD 8: 390-458; ICD 9: 390-459; ICD 10: I00-I99)*  | 14,627 |
|  Ischaemic heart disease  *(ICD 7: 420-422; ICD 8/9: 410-414; ICD 10: I20-I25)* | 9,349 |
|  Cerebrovascular disease  *(ICD 7: 330-334; ICD 8/9: 430-438; ICD 10: I60-I69)*  | 2,795 |
| Diseases of respiratory system *(ICD 7: 470-527; ICD 8/9: 460-519; ICD 10: J00-J99)* | 4,730 |
|  Bronchitis  *(ICD 7: 500-502; ICD 8/9: 466, 490-491; ICD 10: J20-J22, J40-J42)* | 842 |
|  Emphysema  *(ICD 7: 527.1; ICD 8/9: 492; ICD 10: J43)* | 163 |
|  Asthma *(ICD 7: 241; ICD 8/9: 493; ICD 10: J45)* | 63 |
| Diseases of the digestive system*(ICD 7: 530-587; ICD 8/9: 520-577; ICD 10: K00-K93)* | 828 |
|  Diseases of oral cavity, salivary grands and jaws *(ICD 7: 530-539; ICD 8/9: 520-529; ICD 10: K00-K14)*  | 3 |
|  Diseases of oesophagus, stomach and duodenum  *(ICD 7: 540-545; ICD 8/9: 530-537; ICD 10: K20-K31)* | 258 |
|  Peptic ulcer  *(ICD 7: 540-541; ICD 8/9: 531-533; ICD 10: K25-K27)* | 220 |
|  Disease of the liver  *(ICD 7: 580-583; ICD 8/9: 570-573; ICD 10: K70-K77)* | 106 |
|  Cirrhosis of liver  *(ICD 7: 581; ICD 8/9: 571; ICD 10: K70.3, K71.7, K74.3-6)* | 83 |
| Diseases of genitourinary system*(ICD 7: 590-637; ICD 8/9: 580-629 ICD 10: N00-N99)* | 435 |
|  Nephritis and nephrosis *(ICD 7: 590-594; ICD 8/9: 580-584; ICD 10: N00-N29)* | 207 |
| Accidents*(ICD 7: E800-962; ICD 8/9: E800-949; ICD 10: V01-X59)*  | 440 |
| Suicides *(ICD 7: E963, E970-979; ICD 8/9: E950-959; ICD 10: X60-84)*  | 82 |

**Supplementary Table 2.** Standardised Mortality Ratios (SMRs) by start date (i.e. pre/post-1949) in the rubber industry over 1967-2015 (using England & Wales reference rates).

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Start of employment** |  |  |
|  | **<1949** | **≥1949** |  |  |
| **Cause of death**  | **n** | **SMR**  | **95% CI** | **n** | **SMR**  | **95% CI** | **Test for homogeneity (Χ2)** | **p-value** |
| All causes |  |  |  |  |  |  |  |  |
|  Incl missing cause of death | 11,883 | 1.07 | 1.05 to 1.09 | 22,298 | 1.13 | 1.11 to 1.14 | 22.62 | <0.001 |
|  Excl missing cause of death | 11,165 | 1.05 | 1.03 to 1.07 | 21,077 | 1.10 | 1.09 to 1.11 | 14.3 | <0.001 |
| All neoplasms | 3,085 | 1.11 | 1.07 to 1.15 | 6,142 | 1.15 | 1.12 to 1.18 | 2.31 | 0.13 |
| All cause excl neoplasms | 8,080 | 1.03 | 1.01 to 1.05 | 14,945 | 1.08 | 1.06 to 1.10 | 11.35 | <0.001 |
| All malignant neoplasms | 3,049 | 1.12 | 1.08 to 1.16 | 6,052 | 1.15 | 1.13 to 1.18 | 1.19 | 0.276 |
| MN Larynx | 18 | 0.80 | 0.47 to 1.26 | 44 | 1.02 | 0.74 to 1.37 | 0.74 | 0.389 |
| MN Oesophagus | 93 | 0.93 | 0.75 to 1.14 | 240 | 1.11 | 0.97 to 1.26 | 2.14 | 0.143 |
| MN Stomach cancer | 271 | 1.21 | 1.07 to 1.36 | 497 | 1.30 | 1.19 to 1.42 | 0.85 | 0.357 |
| MN Trachea, bronchus and lung | 1,133 | 1.18 | 1.11 to 1.25 | 2,247 | 1.29 | 1.23 to 1.34 | 5.59 | 0.018 |
| MN Prostate | 331 | 1.09 | 0.98 to 1.21 | 554 | 0.96 | 0.88 to 1.05 | 3.19 | 0.074 |
| MN Bladder | 170 | 1.33 | 1.15 to 1.55 | 247 | 1.06 | 0.94 to 1.20 | 5.30 | 0.021 |
| Multiple Myeloma | 36 | 1.03 | 0.74 to 1.42 | 69 | 0.98 | 0.77 to 1.24 | 0.05 | 0.829 |
| Leukaemia | 67 | 1.08 | 0.85 to 1.37 | 128 | 1.02 | 0.85 to 1.21 | 0.15 | 0.702 |
| Non-Hodgkin's Lymphoma | 42 | 0.82 | 0.60 to 1.11 | 101 | 0.89 | 0.73 to 1.08 | 0.21 | 0.648 |
| Circulatory Diseases | 5,231 | 1.05 | 1.02 to 1.08 | 9,396 | 1.08 | 1.06 to 1.10 | 2.64 | 0.104 |
| Ischaemic Heart Disease | 3,338  | 1.07 | 1.04 to 1.11 | 6,011 | 1.07 | 1.04 to 1.11 | 0.35 | 0.555 |
| Respiratory Diseases | 1,607 | 1.03 | 0.98 to 1.09 | 3,123 | 1.20 | 1.16 to 1.24 | 23.19 | <0.001 |
| Bronchitis | 325 | 0.98 | 0.88 to 1.09 | 517 | 1.18 | 1.09 to 1.29 | 7.52 | 0.006 |
| Emphysema | 55 | 1.1 | 0.84 to 1.43 | 108 | 1.24 | 1.03 to 1.50 | 0.56 | 0.455 |
|  |  |  |  |  |  |  |  |  |

**Supplementary Table 3.** Standardised Mortality Ratios (SMRs) for *a priori* disease groups for workers by job position in the rubber industry over 1967-2015 (using England & Wales reference rates).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **All causes including missing cause of death** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95%CI** | **Upper 95%CI** |
| Storeman1 | 175 | 1.32 | 1.13 | 1.53 |
| Compounding1 | 3403 | 1.19 | 1.15 | 1.23 |
| Latex mixing2 | 407 | 1.22 | 1.10 | 1.34 |
| Extruding2 | 3283 | 1.16 | 1.12 | 1.20 |
| Component building2 | 3751 | 1.12 | 1.09 | 1.16 |
| Moulding3 | 4434 | 1.14 | 1.10 | 1.17 |
| Inspection4 | 1842 | 1.15 | 1.09 | 1.20 |
| Finished goods4 | 2254 | 1.14 | 1.10 | 1.19 |
| Site workers4 | 1978 | 1.26 | 1.20 | 1.31 |
| Engineering4 | 5774 | 1.13 | 1.10 | 1.16 |
| Canteens4 | 29 | 1.24 | 0.83 | 1.78 |
| Factory ops4 | 5300 | 0.98 | 0.95 | 1.00 |
| Commercial staff4 | 437 | 0.92 | 0.84 | 1.01 |
| Engineering staff4 | 334 | 0.90 | 0.81 | 1.00 |
| Technical staff4 | 780 | 0.87 | 0.81 | 0.93 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **All cause excluding missing cause of death** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95%CI** | **Upper 95%CI** |
| Storeman1 | 161 | 1.32 | 1.12 | 1.54 |
| Compounding1 | 3198 | 1.16 | 1.12 | 1.21 |
| Latex mixing2 | 385 | 1.21 | 1.09 | 1.33 |
| Extruding2 | 3114 | 1.13 | 1.09 | 1.18 |
| Component building2 | 3538 | 1.10 | 1.06 | 1.13 |
| Moulding3 | 4193 | 1.11 | 1.08 | 1.15 |
| Inspection4 | 1747 | 1.12 | 1.07 | 1.18 |
| Finished goods4 | 2097 | 1.12 | 1.08 | 1.17 |
| Site workers4 | 1884 | 1.25 | 1.20 | 1.31 |
| Engineering4 | 5451 | 1.11 | 1.08 | 1.14 |
| Canteens4 | 27 | 1.19 | 0.79 | 1.73 |
| Factory ops4 | 4995 | 0.95 | 0.92 | 0.97 |
| Commercial staff4 | 413 | 0.89 | 0.81 | 0.98 |
| Engineering staff4 | 313 | 0.88 | 0.78 | 0.98 |
| Technical staff4 | 726 | 0.82 | 0.77 | 0.89 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **All neoplasms** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95%CI** | **Upper 95%CI** |
| Storeman1 | 46 | 1.38 | 1.01 | 1.84 |
| Compounding1 | 926 | 1.23 | 1.15 | 1.31 |
| Latex mixing2 | 118 | 1.35 | 1.12 | 1.62 |
| Extruding2 | 902 | 1.20 | 1.12 | 1.28 |
| Component building2 | 1044 | 1.17 | 1.10 | 1.24 |
| Moulding3 | 1244 | 1.19 | 1.12 | 1.25 |
| Inspection4 | 517 | 1.22 | 1.11 | 1.33 |
| Finished goods4 | 565 | 1.13 | 1.04 | 1.22 |
| Site workers4 | 505 | 1.26 | 1.15 | 1.37 |
| Engineering4 | 1560 | 1.16 | 1.11 | 1.22 |
| Canteens4 | 4 | 0.67 | 0.18 | 1.71 |
| Factory ops4 | 1385 | 0.97 | 0.92 | 1.02 |
| Commercial staff4 | 115 | 0.90 | 0.75 | 1.09 |
| Engineering staff4 | 87 | 0.89 | 0.71 | 1.09 |
| Technical staff4 | 209 | 0.85 | 0.74 | 0.98 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **All causes excluding neoplasms** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 115 | 1.29 | 1.07 | 1.55 |
| Compounding1 | 2273 | 1.14 | 1.09 | 1.18 |
| Latex mixing2 | 268 | 1.15 | 1.02 | 1.30 |
| Extruding2 | 2214 | 1.11 | 1.06 | 1.16 |
| Component building2 | 2494 | 1.07 | 1.03 | 1.11 |
| Moulding3 | 2949 | 1.08 | 1.04 | 1.12 |
| Inspection4 | 1232 | 1.09 | 1.03 | 1.15 |
| Finished goods4 | 1533 | 1.12 | 1.07 | 1.18 |
| Site workers4 | 1379 | 1.25 | 1.18 | 1.32 |
| Engineering4 | 3894 | 1.09 | 1.05 | 1.12 |
| Canteens4 | 23 | 1.38 | 0.92 | 2.07 |
| Factory ops4 | 3610 | 0.94 | 0.91 | 0.97 |
| Commercial staff4 | 298 | 0.88 | 0.79 | 0.99 |
| Engineering staff4 | 226 | 0.87 | 0.76 | 0.99 |
| Technical staff4 | 517 | 0.81 | 0.74 | 0.88 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **All malignant neoplasms (MNs)** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 46 | 1.40 | 1.03 | 1.87 |
| Compounding1 | 910 | 1.23 | 1.15 | 1.32 |
| Latex mixing2 | 116 | 1.36 | 1.12 | 1.63 |
| Extruding2 | 888 | 1.20 | 1.12 | 1.28 |
| Component building2 | 1033 | 1.18 | 1.11 | 1.25 |
| Moulding3 | 1228 | 1.20 | 1.13 | 1.26 |
| Inspection4 | 508 | 1.22 | 1.11 | 1.33 |
| Finished goods4 | 552 | 1.12 | 1.03 | 1.22 |
| Site workers4 | 500 | 1.27 | 1.16 | 1.38 |
| Engineering4 | 1542 | 1.17 | 1.12 | 1.23 |
| Canteens4 | 4 | 0.68 | 0.19 | 1.74 |
| Factory ops4 | 1368 | 0.98 | 0.93 | 1.03 |
| Commercial staff4 | 114 | 0.92 | 0.76 | 1.10 |
| Engineering staff4 | 85 | 0.89 | 0 .71 | 1.10 |
| Technical staff4 | 207 | 0.87 | 0.75 | 0.99 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MN Larynx**  |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 0 | - | - | - |
| Compounding1 | 9 | 1.46 | 0.67 | 2.77 |
| Latex mixing2 | 0 | - | - | - |
| Extruding2 | 7 | 1.14 | 0.46 | 2.35 |
| Component building2 | 7 | 0.97 | 0.39 | 2.00 |
| Moulding3 | 4 | - | - | - |
| Inspection4 | 2 | - | - | - |
| Finished goods4 | 8 | 1.97 | 0.85 | 3.89 |
| Site workers4 | 11 | 3.32 | 1.66 | 5.94 |
| Engineering4 | 8 | 0.74 | 0.32 | 1.45 |
| Canteens4 | 0 | - | - | - |
| Factory ops4 | 6 | 0.53 | 0.19 | 1.15 |
| Commercial staff4 | 0 | - | - | - |
| Engineering staff4 | 0 | - | - | - |
| Technical staff4 | 0 | - | - | - |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |
|  |  |  |  |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MN Oesophagus**  |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 0 | - | - | - |
| Compounding1 | 28 | 0.98 | 0.65 | 1.41 |
| Latex mixing2 | 4 | - | - | - |
| Extruding2 | 44 | 1.51 | 1.10 | 2.02 |
| Component building2 | 35 | 0.98 | 0.69 | 1.37 |
| Moulding3 | 48 | 1.15 | 0.85 | 1.53 |
| Inspection4 | 29 | 1.77 | 1.18 | 2.54 |
| Finished goods4 | 22 | 1.17 | 0.73 | 1.77 |
| Site workers4 | 12 | 0.82 | 0.43 | 1.44 |
| Engineering4 | 53 | 1.03 | 0.77 | 1.35 |
| Canteens4 | 0 | - | - | - |
| Factory ops4 | 49 | 0.88 | 0.65 | 1.16 |
| Commercial staff4 | 3 | - | - | - |
| Engineering staff4 | 2 | - | - | - |
| Technical staff4 | 4 | - | - | - |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MN Stomach**  |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 4 | - | - | - |
| Compounding1 | 82 | 1.42 | 1.13 | 1.76 |
| Latex mixing2 | 12 | 1.77 | 0.92 | 3.10 |
| Extruding2 | 88 | 1.55 | 1.24 | 1.91 |
| Component building2 | 80 | 1.23 | 0.97 | 1.53 |
| Moulding3 | 89 | 1.16 | 0.93 | 1.43 |
| Inspection4 | 48 | 1.49 | 1.10 | 1.98 |
| Finished goods4 | 46 | 1.18 | 0.86 | 1.57 |
| Site workers4 | 50 | 1.53 | 1.13 | 2.01 |
| Engineering4 | 128 | 1.26 | 1.05 | 1.50 |
| Canteens4 | 0 | 0.00 |  . |  . |
| Factory ops4 | 111 | 1.07 | 0.88 | 1.29 |
| Commercial staff4 | 11 | 1.25 | 0.63 | 2.24 |
| Engineering staff4 | 7 | 1.03 | 0.42 | 2.13 |
| Technical staff4 | 12 | 0.74 | 0.38 | 1.29 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **MN Trachea, bronchus and lung** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 13 | 1.10 | 0.59 | 1.88 |
| Compounding1 | 380 | 1.48 | 1.34 | 1.64 |
| Latex mixing2 | 50 | 1.68 | 1.24 | 2.21 |
| Extruding2 | 333 | 1.31 | 1.17 | 1.46 |
| Component building2 | 392 | 1.33 | 1.20 | 1.47 |
| Moulding3 | 467 | 1.35 | 1.23 | 1.47 |
| Inspection4 | 199 | 1.39 | 1.21 | 1.60 |
| Finished goods4 | 215 | 1.26 | 1.10 | 1.44 |
| Site workers4 | 194 | 1.38 | 1.19 | 1.59 |
| Engineering4 | 602 | 1.34 | 1.24 | 1.45 |
| Canteens4 | 1 | - | - | - |
| Factory ops4 | 417 | 0.90 | 0.82 | 0.99 |
| Commercial staff4 | 33 | 0.82 | 0.57 | 1.16 |
| Engineering staff4 | 24 | 0.78 | 0.50 | 1.16 |
| Technical staff4 | 60 | 0.80 | 0.61 | 1.03 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MN Prostate**  |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 5 | 1.52 | 0.63 | 3.65 |
| Compounding1 | 71 | 0.91 | 0.72 | 1.15 |
| Latex mixing2 | 13 | 1.45 | 0.84 | 2.50 |
| Extruding2 | 66 | 0.83 | 0.65 | 1.05 |
| Component building2 | 86 | 0.89 | 0.72 | 1.10 |
| Moulding3 | 123 | 1.10 | 0.92 | 1.32 |
| Inspection4 | 56 | 1.24 | 0.95 | 1.61 |
| Finished goods4 | 42 | 0.78 | 0.58 | 1.06 |
| Site workers4 | 43 | 1.05 | 0.78 | 1.42 |
| Engineering4 | 148 | 1.03 | 0.88 | 1.21 |
| Canteens4 | 0 | - | - | - |
| Factory ops4 | 178 | 1.09 | 0.94 | 1.26 |
| Commercial staff4 | 13 | 0.88 | 0.51 | 1.51 |
| Engineering staff4 | 11 | 0.97 | 0.54 | 1.75 |
| Technical staff4 | 30 | 1.04 | 0.73 | 1.48 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MN Bladder** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 |  0 | - | - | - |
| Compounding1 | 39 | 1.18 |  0.86 | 1.612 |
| Latex mixing2 |  2 | - |  - | - |
| Extruding2 | 45 | 1.36 |  1.01 | 1.82 |
| Component building2 | 60 | 1.53 |  1.19 | 1.97 |
| Moulding3 | 54 | 1.18 |  0.91 | 1.55 |
| Inspection4 | 21 | 1.12 |  0.73 | 1.72 |
| Finished goods4 | 24 | 1.07 |  0.72 | 1.60 |
| Site workers4 | 17 | 0.95 |  0.59 | 1.52 |
| Engineering4 | 64 | 1.08 |  0.84 | 1.38 |
| Canteens4 |  0 | - |  - |  -  |
| Factory ops4 | 70 | 1.09 |  0.86 | 1.38 |
| Commercial staff4 |  7 | 1.23 |  0.59 | 2.59 |
| Engineering staff4 |  4 | - |  - | - |
| Technical staff4 | 10 | 0.92 |  0.49 | 1.71 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Multiple Myeloma** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 0 | - | - | - |
| Compounding1 | 9 | 0.93 | 0.48 | 1.79 |
| Latex mixing2 | 0 | - | - | - |
| Extruding2 | 11 | 1.12 | 0.62 | 2.03 |
| Component building2 | 11 | 0.94 | 0.52 | 1.70 |
| Moulding3 | 15 | 1.09 | 0.66 | 1.81 |
| Inspection4 | 8 | 1.46 | 0.73 | 2.91 |
| Finished goods4 | 2 | - | - | - |
| Site workers4 | 5 | 1.00 | 0.42 | 2.41 |
| Engineering4 | 17 | 0.99 | 0.61 | 1.59 |
| Canteens4 | 0 | - | - | - |
| Factory ops4 | 23 | 1.23 | 0.82 | 1.86 |
| Commercial staff4 | 2 | - | - | - |
| Engineering staff4 | 0 | - | - | - |
| Technical staff4 | 2 | - | - | - |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **Leukaemia** |  |  |  |  |
| **Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 1 | - | - | - |
| Compounding1 | 22 | 1.29 | 0.85 | 1.95 |
| Latex mixing2 | 2 | - | - | - |
| Extruding2 | 13 | 0.75 | 0.44 | 1.29 |
| Component building2 | 26 | 1.24 | 0.85 | 1.83 |
| Moulding3 | 28 | 1.15 | 0.79 | 1.67 |
| Inspection4 | 10 | 1.02 | 0.55 | 1.90 |
| Finished goods4 | 9 | 0.79 | 0.41 | 1.51 |
| Site workers4 | 7 | 0.78 | 0.37 | 1.63 |
| Engineering4 | 25 | 0.81 | 0.55 | 1.20 |
| Canteens4 | 1 | - | - | - |
| Factory ops4 | 31 | 0.93 | 0.66 | 1.33 |
| Commercial staff4 | 9 | 2.97 | 1.55 | 5.71 |
| Engineering staff4 | 3 | - | - | - |
| Technical staff4 | 8 | 1.35 | 0.67 | 2.70 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **Non-Hodgkin’s Lymphoma****Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95%** **CI** |
| Storeman1 | 3 | - | - | - |
| Compounding1 | 9 | 0.60 | 0.31 | 1.16 |
| Latex mixing2 | 0 | - | - | - |
| Extruding2 | 18 | 1.18 | 0.74 | 1.88 |
| Component building2 | 17 | 0.91 | 0.57 | 1.46 |
| Moulding3 | 17 | 0.78 | 0.49 | 1.26 |
| Inspection4 | 6 | 0.70 | 0.32 | 1.56 |
| Finished goods4 | 9 | 0.92 | 0.48 | 1.77 |
| Site workers4 | 6 | 0.80 | 0.36 | 1.79 |
| Engineering4 | 27 | 1.01 | 0.69 | 1.47 |
| Canteens4 | 0 | - | - | - |
| Factory ops4 | 25 | 0.85 | 0.58 | 1.26 |
| Commercial staff4 | 2 | - | - | - |
| Engineering staff4 | 3 | - | - | - |
| Technical staff4 | 1 | - | - | - |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **Diseases of the Circulatory System****Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95%** **CI** |
| Storeman1 | 82 | 1.42 | 1.14 | 1.76 |
| Compounding1 | 1430 | 1.12 | 1.06 | 1.18 |
| Latex mixing2 | 177 | 1.19 | 1.03 | 1.38 |
| Extruding2 | 1430 | 1.13 | 1.07 | 1.19 |
| Component building2 | 1599 | 1.09 | 1.03 | 1.14 |
| Moulding3 | 1838 | 1.06 | 1.02 | 1.11 |
| Inspection4 | 792 | 1.10 | 1.03 | 1.18 |
| Finished goods4 | 958 | 1.11 | 1.04 | 1.18 |
| Site workers4 | 862 | 1.22 | 1.14 | 1.30 |
| Engineering4 | 2451 | 1.08 | 1.04 | 1.12 |
| Canteens4 | 13 | 1.23 | 0.72 | 2.12 |
| Factory ops4 | 2316 | 0.96 | 0.92 | 1.00 |
| Commercial staff4 | 196 | 0.94 | 0.82 | 1.08 |
| Engineering staff4 | 152 | 0.95 | 0.81 | 1.11 |
| Technical staff4 | 331 | 0.85 | 0.76 | 0.95 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Diseases of the Respiratory System****Job** | **n** | **SMR** | **Lower 95% CI** | **Upper 95% CI** |
| Storeman1 | 16 | 0.95 | 0.58 | 1.56 |
| Compounding1 | 496 | 1.30 | 1.19 | 1.42 |
| Latex mixing2 | 59 | 1.33 | 1.03 | 1.72 |
| Extruding2 | 436 | 1.15 | 1.05 | 1.27 |
| Component building2 | 529 | 1.20 | 1.10 | 1.30 |
| Moulding3 | 647 | 1.26 | 1.16 | 1.36 |
| Inspection4 | 273 | 1.26 | 1.12 | 1.42 |
| Finished goods4 | 332 | 1.25 | 1.12 | 1.39 |
| Site workers4 | 311 | 1.44 | 1.29 | 1.61 |
| Engineering4 | 782 | 1.13 | 1.05 | 1.21 |
| Canteens4 | 5 | 1.51 | 0.63 | 3.62 |
| Factory ops4 | 661 | 0.88 | 0.81 | 0.95 |
| Commercial staff4 | 50 | 0.76 | 0.58 | 1.01 |
| Engineering staff4 | 44 | 0.87 | 0.65 | 1.17 |
| Technical staff4 | 89 | 0.72 | 0.59 | 0.89 |
| 1 = Crude Materials; 2 = Pre-processing; 3 = Curing/Vulcanising; 4 = Finishing |