**Draft Health Hazard Identifier Table (version 2.6) - Road and Highway Construction and Maintenance Work**

Paving, road and highways work covers a range of activities for which there may be a number of associated risks to workers health. The Health Hazard Identifier Table (HHIT) is a tool providing information on the potential exposures that can lead to ill health and is aimed at employers. It will help with the elimination and control of exposures as part of the risk assessment and prioritisation for those tasks where the potential for high exposure is likely (red). It may also be useful in raising worker awareness of ill health risks. The HHIT provides a visual overview of:

* Task
* Likelihood of exposure
* What the exposure is
* Source of exposure
* Potential health effect

The table can be modified to give a site specific picture of exposure. It may also be used as a template for other tasks and industries. It does not provide a definitive answer for site exposures but is aimed at giving information on potential for exposure based on knowledge of the typical processes, tools, materials and environment encountered for the listed task. You must satisfy yourself what the exposures will be for your site and note that those exposures listed as unlikely (green) do not mean that exposure cannot occur. It does not represent the legal requirements for managing risks for these activities but may help you undertake your legal duties.

It is important to note that potential for exposure has been identified through the work of volunteers from the construction industry based on their professional judgement. The table has been shared with construction industry and the feedback information taken into consideration in assigning the likelihood of exposure.

When using this table you should undertake further investigation to explore if the exposures you have identified from the table are relevant for the way your operatives will undertake these tasks. You should also take into account any other tasks you have identified from your risk assessment. The tasks and sources of the exposures are not exhaustive but represent those most commonly encountered.

The tool has been developed as part of the Health and Safety Executive construction supply chain projects. This work draws together stakeholders from across the supply chain in driving forward improvements in health risk management. The work is focused on practicable measures and interventions to improve worker health through partnership with the construction industry to develop solutions together. Industry organisations for the paving, road and highways sector endorse and support the work delivered by this project.

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The table is an aid to identify potential exposures for activities that will require actions to eliminate or control the risks of ill health for that work. The likelihood of exposure for each task is based on the expert judgement of a working group of construction industry volunteers.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Potential for Harmful Levels of Exposure Key | | | Potential Health Effect from Exposure | | | | | | | | | |
| R | Potential high exposure **likely** (without elimination or control measures applied) | | Lung disease and respiratory effects | Skin disease (dermatitis ) | | Asbestos related lung cancers and disease | Biological infections | Noise induced hearing loss | Hand and arm nerve and blood circulatory damage | Musculoskeletal disorders  (spinal degeneration) | Musculoskeletal disorders | Skin damage and skin cancer |
| A | Potential high exposure **possible** (without elimination or control measures applied) | |
| G | Potential high exposure **unlikely** (without elimination or control measures applied) | |
| Paving Road and Highway Activity | | | Source of Exposure | | | | | | | | | |
| C | | C | C | C | P | P | M | H | O |
| 1 | | Breaking out including hydro demolition | R | | A | R | A | R | R | G | A | A |
| 2 | | Excavation, Ground digging and Back Filling | A | | A | R | A | A | A | A | R | A |
| 3 | | Pile cropping | A | | A | R | A | R | R | G | A | A |
| 4 | | Painting | R | | A | R | G | A | G | G | A | A |
| 5 | | Installing drainage systems | R | | A | A | A | A | A | G | A | A |
| 6 | | Road stud milling | A | | G | G | G | R | R | G | R | A |
| 7 | | Removal of road marking (scabbling) | A | | G | G | G | R | R | G | A | A |
| 8 | | Removal of road marking (lance) | A | | A | G | G | R | A | G | A | A |
| 9 | | Surface laying; bitumen products | A | | R | G | R | A | A | G | A | A |
| 10 | | Surface laying; clay, blocks, flags, slabs, natural stone | R | | A | G | G | A | R | G | R | A |
| 11 | | Surface laying; wet pour concrete | G | | R | G | G | A | A | G | A | A |
| 12 | | Surface laying; resins | A | | A | G | G | G | G | G | A | A |
| 13 | | Ground investigation (e.g. site and geotechnical surveys) | R | | A | R | R | A | A | G | A | A |
| 14 | | Site clearance | A | | A | R | A | A | A | A | A | A |
| 15 | | Ground improvement (e.g. mixing of lime, vibrocompaction) | R | | R | R | G | A | A | G | A | A |
| 16 | | Removal of infestations and droppings (e.g. birds rats) | R | | G | G | R | G | G | G | A | A |
| 17 | | Road Planing | A | | A | G | G | R | A | A | A | A |
| 18 | | Bridge Maintenance | R | | A | R | G | A | A | A | A | A |
| 19 | | Fencing – errecting boundary and noise protection | A | | A | G | G | A | A | G | A | A |
| 20 | | Installing vehicle restraints (e.g. bollards, crash restraints, barriers) | A | | A | G | G | A | A | A | R | A |
| 21 | | Installing street furniture (includes signage & ironwork) | G | | A | G | G | A | A | G | A | A |
| 22 | | Remedial works (road repair and maintenance) | A | | A | G | G | A | R | G | A | A |
| 23 | | Structure waterproofing and repairing | R | | A | G | A | A | A | G | A | A |
| 24 | | Installing expansion joints | A | | A | G | G | A | A | G | A | A |
| 25 | | Structure bearing replacement | G | | A | R | A | G | A | G | A | A |
| 26 | | Structure concrete coring | A | | A | G | G | A | A | G | A | A |
| 27 | | Highway road coring | A | | G | G | G | A | A | G | A | A |
| 28 | | Using heavy machinery and plant | R | | G | G | G | R | G | A | G | A |
| Causes of Health Effect | | | Dust, mist, gas or fume | | Solvents, chemicals and wet or abrasive materials | Asbestos dust | Microorganism contaminated land and water | Noise | Hand/arm vibrations | Body vibrations | Manual handling operations (excessive loads and movement) | UV radiation |
| Source of Exposure | | | C | | Processes that generate or handling of hazardous or contaminated materials | | | | | | | |
| M | | Operation of mechanised plant and machinery | | | | | | | |
| P | | Operation of power tools | | | | | | | |
| H | | Manual handling of materials, tools and equipment | | | | | | | |
| O | | UV exposure from outdoor work | | | | | | | |