

Annex table 5. Risk reduction measures proposed by the SK2-RiskManagement -software.

Question No.	The answer that leads to proposed risk reduction measure	Risk reduction measure that the programme proposes, when the user has chosen the answer in the left column. The user may answer 1. no, 2. yes, together with an indication of the responsible person, or 3. that the measure has been taken/implemented, after which the new (potentially decreased) levels of the risk can be calculated (by the programme).
1		—
2	Type of the process/how the chemical is used <b>Manual; e.g. painting, spreading, mixing, batching, feeding or packaging of the chemical manually</b>	Is it possible to enclose the process, totally prevent the emissions by changing the work process or by shifting to automatic batching/loading ?
3	a. Vapour pressure of a liquid chemical or b. the dust formation from a solid/powder  <b>a. Moderate or high vapour pressure (&gt;1kPa = 10 mbar = 7,5 mmHg) b. Dust is generated/released from the process (with diameter of 1-10 µm)</b>	Is it possible to substitute the chemical by another with lower vapour pressure or less dust formation, shifting from powders to granulates/pellets or from liquids to gels may decrease the exposure.
4	a. Temperature of the process OR b. Spreading of the dust  <b>a. Higher temperature which increases evaporation b. Dust is spread to the work space</b>	Is it possible to decrease the temperature, in which the chemical is used or processed; this would diminish the evaporation of the chemical? The temperature should be several dozens of degrees lower than the boiling point of the chemical/substance. When a (chemical in) powder from is used and transferred as suspension, granulates or pellets the dust formation decreases.
5	Exposure measurements  <b>Concentrations have not been measured or they are greater than 10 % of the OEL</b>	—
6	Local ventilation  <b>Local ventilation does not exist or its efficiency has not been checked.</b>	Is it possible to add local ventilation to the work place, especially when evaporation from e.g. surfaces or mixers is abundant? Air flow from the upper part of a mixer to the local ventilation should be at least 0.5 m/sec. Local ventilation should be placed as close to the source of release/emission as possible. Optimally, hoses and tubes are short and straight. Garbage should not get into the ventilation tubes.

7	General Ventilation  <b>Adequacy of the general ventilation has not been ascertained/verified.</b>	Can the condition, cleanliness and effectiveness of general ventilation be improved? Note that often the design or changes of general ventilation require expert consultation.
8	Breathing masks  <b>Air masks are not used or are not suitable at that work or are not properly maintained</b>	Is it possible to improve suitability, availability, use and storage of breathing masks at the working place? It should be assured that the breathing mask is actually used in the work. Filters should be changed sufficiently often and stored in an enclosed closet. Information of the necessary PPE and motivation to use them should be included in the training of the workers.
9	Direct or indirect skin contact with chemical  <b>Skin deposition or contact is possible</b>	Is it possible to prevent the skin contact with the chemical and the contamination of the clothing, e.g. <ul style="list-style-type: none"> <li>• by automation,</li> <li>• by changing of the process or batching/loading,</li> <li>• by avoiding manual work or by redesigning the work stages.</li> </ul> If splashes and spills are possible, could the work stages be changed or could the work tools be improved accordingly. If working surfaces or tools are dirty or contaminated, is it possible to improve the hygiene and cleaning.
10	Temperature of the work space and the physical load  <b>Temperature and/or humidity is clearly higher than normal OR the work is physically demanding/hard.</b>	Is it possible to diminish the temperature and/or the relative humidity in the working area e.g. by general ventilation or by cooling. In a physically demanding work, suitable PPE is especially important.
11	Personal Protective Equipment (gloves, protective clothing.)  <b>PPE are not used at the workplace OR the appropriateness of the PPE has not been assured.</b>	Is it possible to improve the efficiency of PPE ? Check the gloves and protective clothing: they should be in use, available near to the work space, and correctly chosen taking into account the chemicals used. Take into account that also other parts of skin, except the hands, can be exposed at work. Hygiene, frequent washing of hands and other contaminated parts of skin, frequent changing of gloves, washing of protective clothing decreases exposure. PPE should be stored in clean closets. Links similar to <a href="http://fi.osha.eu.int/good_practice/ohjeet/stm/suojaimet.pdf">http://fi.osha.eu.int/good_practice/ohjeet/stm/suojaimet.pdf</a> should be indicated.
12	Removal of dust and aerosols  <b>No adequate ventilation</b>	Is it possible to improve efficiency of general ventilation to remove dust and aerosols? Note that local ventilation may be more effective measure to reduce the skin deposition of dusts and aerosols.