

# Assessment of classification & labelling for the products Dansand® and Danfugesand®

Dansand A/S markets the weed inhibiting joint filling sand Danfugesand®/Dansand®, hereafter Dansand®, consisting of quartz sand and sodium silicate.

Dansand® is considered to be a chemical product and consequently, the product has been evaluated according to the rules for chemical substances and products. These rules can be found in the Directive 1999/45/EC also called the preparation directive and amendments to this directive<sup>1</sup>.

## Classification by calculation and testing (titration)

As mentioned above, Dansand ® consists of two components, i.e. quartz sand and sodium silicate. For classification purposes, pH of the product Dansand® and the classification of each of the two components are relevant.

### Quartz sand

According to the preparation directive and amendments to this directive<sup>1</sup> the Quartz sand component does not have to be classified as a chemical substance and, consequently, quartz sand has no influence on the calculation of the classification of Dansand®. However, attention must be drawn to the fact that quartz sand may contain fine particles, for which national authorities has established occupational exposure limits.

### Sodium silicate

As a soluble silicate, the classification of sodium silicate depends on the molar ratio  $\text{SiO}_2 / \text{Na}_2\text{O}$ , which in actual case is  $> 3.22$ . For sodium silicates with molar ratios greater than 3.20, no classification is specified and, consequently, in this case the content of sodium silicate has no influence on the calculation of the classification of Dansand®.

### pH

Dansand® has a relatively high pH, and, as a precautionary measure, the basic reserve has been calculated after titration<sup>2</sup>. The basic reserve was measured to be consistently and well below 13, i.e. also according to this parameter, Dansand® does not classify as a corrosive or irritating product.

## Conclusion

**In conclusion, the aggregate assessment of above considerations means that there are no requirements for Dansand® to be classified as corrosive or irritating.**

For professional use, we recommend however that safety data sheets are made available.

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<sup>1</sup> Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations and the latest Corrigendum Commission Directive 2004/73/EC of 29 April 2004 adapting to technical progress for the 29th time Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances.

<sup>2</sup> In order to measure the basic reserve, 100 g product is titrated with sulphuric acid until the pH-value drops to 10. The amount of acid used is recorded and used to calculate the equivalent amount of NaOH (in grams), which was neutralised by the acid. This quantity is defined as the basic reserve.  
If  $\text{pH} + 1/12$  of the basic reserve  $\geq 14.5$ , the product has to be classified with the hazard symbol Corrosive (C) and the risk phrase R35.  
If  $\text{pH} + 1/6$  of the basic reserve  $\geq 13$ , the product has to be classified with the hazard symbol Irritating (Xi) and the risk phrases R36/38.  
If  $\text{pH} + 1/6$  of the basic reserve  $< 13$ , the product does not have to be classified.