



# Operating instruction

Example

Supplementary item No 3



## **Imprint**

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The responsibility for the contents of this publication lies with the authors.

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	<b>OPERATING INSTRUCTION according to § 14 of the German Hazardous Substances Ordinance</b>	NR: XXX
WORKING AREA: city xxx, laboratory area xxx	ACTIVITY: controlled generation of homogeneous nanoparticle dusts using the shaker-process and the atomizer device	
<b>DESCRIPTION OF HAZARDOUS MATERIAL</b>		
Multiwalled Carbon Nano Tubes (CNT) NAME XXX (Synthetic graphite containing max. x% inorganic contamination)		
<b>RISKS TO HUMAN HEALTH OR THE ENVIRONMENT</b>		
<ul style="list-style-type: none"> <li>- During handling CNT's, powder may be released. The substance has not been tested completely yet. At the moment there is incomplete evidence according to the dermal and inhalative exposure. For this reason, following the precautionary approach is required.</li> <li>- CNT powder can be irritant to eyes, skin, mucous membrane and respiratory system.</li> <li>- Traces of catalyst material (cobalt) can lead to allergic reactions.</li> <li>- Water hazard class: 1 – slightly hazardous to water</li> </ul>		
<b>PROTECTIVE MEASURES AND RULES OF CONDUCT</b>		
	<b>Hand protection:</b> Use chemical resistant gloves made of nitrile rubber (thickness > 0,35 mm) of category 3 according to EN 374. In case of contamination, gloves shall be disposed properly. <b>Eye protection:</b> Safety goggles with side protection <b>Body protection:</b> Laboratory coat as hygiene measure shall be changed in case of contamination.	
	<b>Rules of conduct:</b> <ul style="list-style-type: none"> <li>- The general hygiene measures for laboratories and the operating introductions for the laboratory area xxx have to be followed (do not eat or drink,..).</li> <li>- Avoid direct contact of CNT's to eyes, skin and mucous membrane.</li> <li>- Avoid dust generation while handling CNT's.</li> <li>- Activities, where dust generation cannot be avoided, are performed within the glove box.</li> <li>- Before starting work, carry out a tightness test of the facility according to the respective standard operation procedure "xxx".</li> <li>- Handle nanomaterials only, while the ventilation system is switched on.</li> <li>- Store the CNT's in closed, airtight containers within the glove box.</li> <li>- Avoid the formation of explosive dust-air-mixtures (at concentrations of &gt; 500 g/m³).</li> <li>- The laboratory coat shall be changed and stored in the laboratory only.</li> </ul>	
	(Continuation of Rules of conduct from the previous row)	
<b>BEHAVIOUR IN CASE OF EMERGENCY</b>		
<ul style="list-style-type: none"> <li>- Ensure adequate ventilation.</li> <li>- Wear additional personal protective equipment:                      Respiratory protection → half-mask, at least FFP2                      Body protection → disposable protective clothing according to EN 13982-1</li> <li>- CNT's respectively further contaminated agents shall not get into the canalization or the aquatic environment.</li> <li>- Clean spilled materials and contaminated work surfaces preferably with wet cloths and cleaning agents.</li> <li>- Suitable extinguishing agents: carbon dioxide, foam, extinguishing powder or water spray.</li> </ul>		
<b>FIRST AID</b>		
<ul style="list-style-type: none"> <li>- In case of <b>skin contact</b>, put off contaminated clothing. Clean all affected parts of your skin thoroughly with water and hand washing paste. In case of skin reaction, consult a medical doctor.</li> <li>- In case of <b>eye contact</b>, flush eyes with plenty of water for at least 10 minutes with eyelids open. Consult an eye specialist.</li> <li>- In case of <b>inhalation</b>, bring the affected person into the open air immediately.</li> </ul> <b>Emergency call: for instance 112 (in Germany)</b>		
<b>APPROPRIATE WASTE DISPOSAL</b>		
<ul style="list-style-type: none"> <li>- Do not dispose waste and solutions directly into the sink, but resorb them with cleaning cloths.</li> <li>- Collect cleaning cloths or CNT contaminated protective clothing (including laboratory coat) within a labelled and closed container (for instance a PE-drum with a standard lid and clamping ring) and dispose them according to the respective AVV-key xxx.</li> <li>- Allocate empty packaging, which are cleaned with wet cloths, to the return system of the chemical industry.</li> </ul>		
Date: xx.xx.20xx	Signature:  Release: _____	