















# Safety information for samarium cobalt magnets

The information for the safe handling of neodymium magnets, ferrite magnets, AlNiCo magnets and SmCo magnets can be found at:  
<https://www.supermagnete.de/eng/safety>

<p><b>Danger</b></p> 	<p><b>Swallowing</b></p> <p>Children could swallow small magnets.          If several magnets are swallowed, they could get stuck in the intestine and cause perilous complications.</p> <p>Magnets are not toys! Make sure that children don't play with magnets.</p>
<p><b>Danger</b></p> 	<p><b>Electrical conductivity</b></p> <p>Magnets are made of metal and conduct electricity.          Children might try to put magnets into a power outlet and thereby suffer from an electric shock.</p> <p>Magnets are not toys! Make sure that children don't play with magnets.</p>
<p><b>Warning</b></p> 	<p><b>Contusions</b></p> <p>Big magnets have a very strong attractive force.</p> <ul style="list-style-type: none"> <li>• Unsafe handling could cause jamming of fingers or skin in between magnets. This may lead to contusions and bruises.</li> <li>• Powerful, very large magnets could cause bone fractures.</li> </ul> <p>Wear heavy protective gloves when handling larger magnets.</p>
<p><b>Warning</b></p> 	<p><b>Pacemaker</b></p> <p>Magnets could affect the functioning of pacemakers and implanted heart defibrillators.</p> <ul style="list-style-type: none"> <li>• A pacemaker could switch into test mode and cause illness.</li> <li>• A heart defibrillator may stop working.</li> </ul> <ul style="list-style-type: none"> <li>• If you wear these devices keep sufficient distance to magnets: <a href="http://www.supermagnete.de/eng/faq/distance">www.supermagnete.de/eng/faq/distance</a></li> <li>• Warn others who wear these devices from getting too close to magnets.</li> </ul>
<p><b>Warning</b></p> 	<p><b>Heavy objects</b></p> <p>Too heavy loads, symptoms of fatigue as well as material defect could cause a magnet or magnetic hook to loosen from the surface that it was attached to.          Falling objects could lead to serious injuries.</p> <ul style="list-style-type: none"> <li>• The indicated adhesive force applies only to ideal conditions. Allow for a high safety cushion.</li> <li>• Don't use magnets in places where people could sustain injuries in case of material failure.</li> </ul>
<p><b>Warning</b></p> 	<p><b>Metal splinters</b></p> <p>SmCo magnets are brittle. Colliding magnets could crack.          Sharp splinters could be catapulted away for several meters and injure your eyes.</p> <ul style="list-style-type: none"> <li>• Avoid the collision of magnets.</li> <li>• Wear safety glasses when handling larger magnets.</li> <li>• Make sure that nearby people are also protected or keep their distance.</li> </ul>
<p><b>Caution</b></p> 	<p><b>Magnetic field</b></p> <p>Magnets produce a far-reaching, strong magnetic field. They could damage TVs and laptops, computer hard drives, credit and ATM cards, data storage media, mechanical watches, hearing aids and speakers.</p> <ul style="list-style-type: none"> <li>• Keep magnets away from devices and objects that could be damaged by strong magnetic fields.</li> <li>• Please refer to our table of recommended distances: <a href="http://www.supermagnete.de/eng/faq/distance">www.supermagnete.de/eng/faq/distance</a></li> </ul>

SAFETY-SMCO-ENG 2025-01

<p><b>Caution</b></p> 	<p><b>Combustibility</b></p> <p>When machining SmCo magnets, the drilling dust could easily ignite.</p> <p>Stay away from machining magnets or use appropriate tools and sufficient cooling water.</p>
<p><b>Caution</b></p> 	<p><b>Airfreight</b></p> <p>Magnetic fields of improperly packaged magnets could influence airplane navigation devices. In the worst case it could lead to an accident.</p> <ul style="list-style-type: none"> <li>• Airfreight magnets only in packaging with sufficient magnetic shielding.</li> <li>• Please refer to the respective regulations: <a href="http://www.supermagnete.de/eng/faq/airfreight">www.supermagnete.de/eng/faq/airfreight</a></li> </ul>
<p><b>Caution</b></p> 	<p><b>Postage</b></p> <p>Magnetic fields of improperly packaged magnets could cause disturbances in sorting machines and damage fragile goods in other packages.</p> <ul style="list-style-type: none"> <li>• Please refer to our shipping tips: <a href="http://www.supermagnete.de/eng/faq/shipping">www.supermagnete.de/eng/faq/shipping</a></li> <li>• Use a large box and place the magnet in the middle surrounded by lots of padding material.</li> <li>• Arrange magnets in a package in a way that the magnetic fields neutralise each other.</li> <li>• If necessary, use sheet iron to shield the magnetic field.</li> <li>• There are stricter rules for airfreight: Refer to the warning notice "Airfreight".</li> </ul>
<p><b>Notice</b></p> 	<p><b>Demagnetisation through neodymium magnets</b></p> <p>Stronger neodymium magnets can reverse the polarity or demagnetise SmCo magnets.</p> <ul style="list-style-type: none"> <li>• However, samarium cobalt magnets are similarly resistant to magnetic influences as neodymium magnets.</li> <li>• Keep SmCo magnets at least 5 cm away from neodymium magnets and do not mix the two types of magnets.</li> </ul>
<p><b>Notice</b></p> 	<p><b>Temperature resistance</b></p> <p>SmCo magnets can be used at temperatures ranging from -40°C to 350°C. At lower and higher temperatures they lose part of their adhesive force permanently.</p> <p>Do not use samarium cobalt magnets in places where they are exposed to temperatures below -40°C or above 350°C.</p>
<p><b>Notice</b></p> 	<p><b>Mechanical treatment</b></p> <p>Samarium cobalt magnets are very brittle. When drilling or sawing a magnet with improper tools, the magnet may break.</p> <p>Stay away from mechanical treatment of magnets if you do not possess the necessary equipment and experience.</p>
<p><b>Notice</b></p> 	<p><b>Influence on people</b></p> <p>According to the current level of knowledge, magnetic fields of permanent magnets do not have a measurable positive or negative influence on people. It is unlikely that permanent magnets constitute a health risk, but it cannot be ruled out entirely.</p> <ul style="list-style-type: none"> <li>• For your own safety, avoid constant contact with magnets.</li> <li>• Store large magnets at least one metre away from your body.</li> </ul>