















Safety information for samarium cobalt magnets

Tips for the safe handling of ferrite magnets: see <https://www.supermagnete.it/eng/safety-ferrite.pdf>

Tips for the safe handling of neodymium magnets: see <https://www.supermagnete.it/eng/safety-neodymium.pdf>

<p>Danger</p> 	<p>Swallowing</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>Danger</p> 	<p>Electrical conductivity</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>Warning</p> 	<p>Contusions</p> <p>Big magnets have a very strong attractive force.</p> <ul style="list-style-type: none"> • Unsafe handling could cause jamming of fingers or skin in between magnets. This may lead to contusions and bruises. • Powerful, very large magnets could cause bone fractures. <p>Wear heavy protective gloves when handling larger magnets.</p>
<p>Warning</p> 	<p>Pacemaker</p> <p>Magnets could affect the functioning of pacemakers and implanted heart defibrillators.</p> <ul style="list-style-type: none"> • A pacemaker could switch into test mode and cause illness. • A heart defibrillator may stop working. <ul style="list-style-type: none"> • If you wear these devices keep sufficient distance to magnets: www.supermagnete.it/eng/faq/distance • Warn others who wear these devices from getting too close to magnets.
<p>Warning</p> 	<p>Heavy objects</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"> • The indicated adhesive force applies only to ideal conditions. Allow for a high safety cushion. • Don't use magnets in places where people could sustain injuries in case of material failure.
<p>Warning</p> 	<p>Metal splinters</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"> • Avoid the collision of magnets. • Wear safety glasses when handling larger magnets. • Make sure that nearby people are also protected or keep their distance.
<p>Caution</p> 	<p>Magnetic field</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"> • Keep magnets away from devices and objects that could be damaged by strong magnetic fields. • Please refer to our table of recommended distances: www.supermagnete.it/eng/faq/distance

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<p>Caution</p> 	<p>Combustibility</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>Caution</p> 	<p>Airfreight</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"> • Airfreight magnets only in packaging with sufficient magnetic shielding. • Please refer to the respective regulations: www.supermagnete.it/eng/faq/airfreight
<p>Caution</p> 	<p>Postage</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"> • Please refer to our shipping tips: www.supermagnete.it/eng/faq/shipping • Use a large box and place the magnet in the middle surrounded by lots of padding material. • Arrange magnets in a package in a way that the magnetic fields neutralise each other. • If necessary, use sheet iron to shield the magnetic field. • There are stricter rules for airfreight: Refer to the warning notice "Airfreight".
<p>Notice</p> 	<p>Demagnetisation through neodymium magnets</p> <p>Stronger neodymium magnets can reverse the polarity or demagnetise SmCo magnets.</p> <ul style="list-style-type: none"> • However, samarium cobalt magnets are similarly resistant to magnetic influences as neodymium magnets. • Keep SmCo magnets at least 5 cm away from neodymium magnets and do not mix the two types of magnets.
<p>Notice</p> 	<p>Temperature resistance</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>Notice</p> 	<p>Mechanical treatment</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>Notice</p> 	<p>Influence on people</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"> • For your own safety, avoid constant contact with magnets. • Store large magnets at least one metre away from your body.