

Magnet Safety Guide

Handling

Children should not be allowed to play with magnets. Children should be strictly supervised by an adult when handling magnets. Children and adults should not ingest magnets or place magnets in any body orifice such the ear, nose or mouth. Ingestion of magnets is very hazardous. If magnets are ingested or aspirated to the lungs, immediate medical attention is required.

Rare-Earth magnets are fragile and can break easily. These magnets will become demagnetized when exposed to high heat. These magnets are powerful and can accelerate at high speeds toward each other and toward ferrous material. When these magnets come together quickly, they can shatter and break sending particles at speed. These magnets can also pinch strongly if allowed to come together against the skin. You should always wear gloves and eye protection when handling large magnets. Very large magnets can pose a crushing hazard and should not be handled.

Pull force descriptions on this site are estimates based on ideal conditions and should not be used in application design. Variations in iron content, thickness, temperature and surface finish and condition will all reduce these ratings. Magnets should never be used to lift objects over people.

Rare-earth magnets have strong magnetic fields that can damage electronic equipment and magnetic data storage media. You should keep these magnets away from electronic equipment, computer discs, credit cards, video tapes, and other magnetic media.

Neodymium rare-earth magnets should not be burned. These magnets can ignite and burn at high intensity. These magnets should not be drilled or machined. Drilling may cause high heat to develop resulting in ignition. The magnets may shatter and break when drilled

Neodymium rare-earth magnets are subject to corrosion. Magnets that have corroded have changed their physical properties. The Material Safety Data Sheets (MSDS) for the component materials (Iron, Neodymium, Boron, Nickel, and Copper) should be consulted prior to the use, handling or transportation of corroded neodymium rare-earth magnets.

Transportation

Magnetized materials can be hazardous to aircraft. If the field strength is strong enough it may be capable of causing the deviation of aircraft instruments. Any magnetic material with a measurable field strength greater than 0.00525 gauss at 15 feet is prohibited from air transportation in the USA. The International Air Transport Association (IATA) Dangerous Goods Regulations provide guidelines for the identification, classification, and testing of potentially hazardous materials offered for transports by air. IATA Packing Instruction 902 defines the acceptance criteria and provides packaging guidelines for magnetized material. These instructions should be consulted prior to transporting magnetic material by air. If you are transporting/posting the magnets make sure they are sent in the supplied packaging.

Health Effects

Individuals with pacemakers or internal medical devices should use caution when handling strong magnets. Magnetic fields may affect the operation of these devices. Consult your physician and the manufacturer of your medical device to determine its susceptibility to static magnetic fields prior to handling magnets. All of our magnetic products should be kept at a safe distance from individuals with these devices.

We are not aware of any other positive or negative health effects from handling neodymium magnets. While there are numerous anecdotal claims promoting the health benefits of permanent magnets, we are not aware of any scientific studies that correlate static magnetic fields with the cause or cure of human diseases. Individuals with a health problem should seek qualified medical assistance.

Disposal

Rare-earth magnets should be disposed of in compliance with local, state, and Federal law. All strong permanent magnets should be thermally demagnetized prior to disposal. Alternatively, all strong permanent magnets should be placed in a steel container prior to disposal so the magnets do not attract waste disposal equipment or refuse containers.