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PART 1262—SAFETY STANDARD FOR MAGNETS

Sec.

1262.1 Scope, purpose, application, and exemptions.

1262.2 Definitions.

1262.3 Requirements.

1262.4 Test procedure for determining flux index.

1262.5 Findings.

AUTHORITY: 15 U.S.C. 2056, 2058.

SOURCE: 87 FR 57789, Sept. 21, 2022, unless otherwise noted.

§ 1262.1 Scope, purpose, application, and exemptions.

(a) *Scope and purpose.* This part, a consumer product safety standard, prescribes the safety requirements for a *subject magnet product*, as defined in § 1262.2(b). These requirements are intended to reduce or eliminate an unreasonable risk of death or injury to consumers who ingest one or more *hazardous magnets* (as defined in § 1262.2(a)) from a *subject magnet product*.

(b) *Application.* Except as provided in paragraph (c) of this section, all *subject magnet products* that are manufactured after October 21, 2022, are subject to the requirements of this part.

(c) *Exemption.* The following consumer products are exempt from the requirements of this part: Toys that are subject to 16 CFR part 1250.

§ 1262.2 Definitions.

The following definitions apply for purposes of this part:

(a) *Hazardous magnet* means a magnet that fits entirely within the cylinder described in 16 CFR 1501.4 and that has a flux index of 50 kG² mm² or more when tested in accordance with the method described in 1262.4.

(b) *Subject magnet product* means a consumer product that is designed, marketed, or intended to be used for entertainment, jewelry (including children's jewelry), mental stimulation, stress relief, or a combination of these purposes, and that contains one or more loose or separable magnets, but does not include products sold and/or distributed solely to school educators, researchers, professionals, and/or commercial or industrial users exclusively for educational, research, professional, commercial, and/or industrial purposes.

§ 1262.3 Requirements.

Each loose or separable magnet in a *subject magnet product* that fits entirely within the cylinder described in 16 CFR 1501.4 must have a flux index of less than 50 kG² mm² when tested in accordance with the method described in § 1262.4.

§ 1262.4 Test procedure for determining flux index.

(a) Select at least one loose or separable magnet of each shape and size in the *subject magnet product*.

(b) Measure the flux index of each selected magnet in accordance with the procedure in section 8.25.1 through 8.25.3 of ASTM F963-17, *Standard Consumer Safety Specification for Toy Safety*, approved on May 1, 2017. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959; phone: (610) 832-9585; www.astm.org. A read-only copy of the standard is available for viewing on the ASTM website at www.astm.org/READINGLIBRARY/. You may inspect a copy at the Office of the Secretary, U.S. Consumer Product Safety Commission, 4330 East West

§ 1262.5

Highway, Bethesda, MD 20814, telephone (301) 504-7479, email: cpsecos@cpsec.gov, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

§ 1262.5 Findings.

(a) *General.* Section 9(f) of the Consumer Product Safety Act (15 U.S.C. 2058(f)) requires the Commission to make findings concerning the following topics and to include the findings in the rule.

(b) *Degree and nature of the risk of injury.* (1) The standard is designed to reduce the risk of death and injury associated with magnet ingestions. There were an estimated 26,600 magnet ingestions were treated in hospital EDs from January 1, 2010, through December 31, 2021. There were an estimated 5,000 magnet ingestions treated in U.S. hospital EDs between January 1, 2010, and December 31, 2021, that involved in-scope identified subject magnet products, and an additional estimated 20,000 ED-treated magnet ingestions involving unidentified magnet products, which are likely to have involved subject magnet products. There were an estimated 2,500 ED-treated ingestions of magnets from identified magnet products in year 2021, higher than the majority of the preceding years, including 2018 through 2020. In this same period, January 1, 2010, through December 31, 2021, there were an estimated 286 CPSRMS-reported magnet ingestions involving identified subject magnet products and 76 CPSRMS-reported magnet ingestions involving unidentified subject magnet products. In addition, based on NEISS annual estimates from 2017–2021, ICM showed that there were an additional estimated 263 magnet ingestion injuries per year involving identified subject magnet products, which were treated in medical settings other than EDs (185 injuries treated outside of hospitals and 78 resulted in direct hospital admission).

(2) The potential injuries when a child or teen ingests one or more hazardous magnets are serious. Health threats posed by hazardous magnet in-

16 CFR Ch. II (1–1–25 Edition)

gestion include pressure necrosis, volvulus, bowel obstruction, bleeding, fistulae, ischemia, inflammation, perforation, peritonitis, sepsis, ileus, ulceration, aspiration, and death, among others. These conditions can result from magnets attracting to each other through internal body tissue, or a single magnet attracting to a ferromagnetic object. CPSC is aware of serious injuries and several fatal magnet ingestion incidents that occurred in the United States, resulting from internal interaction of magnets.

(c) *Number of consumer products subject to the rule.* The CPSC estimates that there are approximately 500,000 subject magnet products sold annually in the United States. However, to account for a range of sales estimates, staff provided information for sales ranging from 100,000 to 1 million units annually.

(d) *The need of the public for subject magnet products and the effects of the rule on their cost, availability, and utility.* (1) Consumers use subject magnet products for entertainment, mental stimulation, stress relief, and jewelry. The rule requires subject magnet products to meet performance requirements regarding size or strength, but it does not restrict the design of products. As such, subject magnet products that meet the standard can continue to serve the purpose of amusement or jewelry for consumers. Magnets that comply with the performance requirements of the rule, such as non-separable magnets, larger magnets, weaker magnets, or non-permanent magnets, may be useful for amusement or jewelry. However, it is possible that there may be some negative effect on the utility of subject magnet products if compliant products function differently or do not include certain desired characteristics.

(2) Retail prices of subject magnet products generally average under \$20. CPSC has identified subject magnet products that comply with the rule, and the prices of compliant and non-compliant products are comparable.

(3) If the costs associated with redesigning or modifying subject magnet products to comply with the rule results in manufacturers discontinuing products, there may be some loss in

availability to consumers. However, this would be mitigated to the extent that compliant products meet the same consumer needs, and there are compliant products currently available for sale to consumers.

(4) Manufacturers may sell complying products to mitigate costs. In addition to products that comply with the performance requirements, there are products that are not subject to the performance requirements. Products sold and/or distributed solely to school educators, researchers, professionals, and/or commercial or industrial users exclusively for educational, research, professional, commercial, and/or industrial purposes are not subject magnet products, and firms may continue to manufacture, sell, and distribute such magnet products.

(e) *Other means to achieve the objective of the rule while minimizing adverse effects on competition, manufacturing, and commercial practices.* The Commission considered other alternatives that might reduce the impact of a rule on small businesses, including promulgating an alternative set of requirements for the flux index or size of the magnets; requiring safer packaging; requiring warnings on the packaging and promotional materials; requiring aversive agents on magnets; relying on voluntary standards; delaying the effective date; and taking no action. Although each of the alternative actions would have lower costs and less impact on small business, none is likely to significantly reduce the injuries associated with ingestion of magnets from subject magnet products.

(f) *Unreasonable risk.* (1) Incident data indicate that there were an estimated 25,000 magnet ingestions treated in U.S. hospital EDs from January 1, 2010, to December 31, 2021, which involved in-scope magnet products. Of these estimated 25,000 ED-treated magnet ingestions, an estimated 5,000 involved in-scope identified subject magnet products, and an estimated 20,000 involved “unidentified” magnet product types that, based on incident data and factors considered by the Commission, are likely to be subject magnet products. During 2017 through 2021, based on the NEISS annual estimate of about 481 magnet injuries initially treated in

hospital EDs involving in-scope identified magnets there were 320 injuries that were treated and released and 161 injuries that required hospitalization. Additionally, based on estimates from the ICM, 185 injuries were treated outside of hospitals annually and another 78 injuries resulted in direct hospital admission. These incidents indicate the frequency with which children and teens ingest magnets, and the need to address the magnet ingestion hazard.

(2) The potential injuries when a person ingests one or more magnets are serious. Health threats posed by magnet ingestion include pressure necrosis, volvulus, bowel obstruction, bleeding, fistulae, ischemia, inflammation, perforation, peritonitis, sepsis, ileus, ulceration, aspiration, and death, among others. These conditions can result from magnets attracting to each other through internal body tissue, or a single magnet attracting to a ferromagnetic object. Magnet ingestion incidents commonly result in hospitalization, particularly when subject magnet products are ingested. The Commission is aware of serious injuries as well as five fatal magnet ingestion incidents that occurred in the United States between November 24, 2005, and January 5, 2021. Four of these incidents involved children 2 years old or younger, and all five victims died from injuries resulting from internal interaction of the magnets. Four of the five incidents identified the products as magnet sets, amusement products, or described them as having characteristics that are consistent with subject magnet products.

(3) CPSC’s trend analysis of the incident data indicates that magnet ingestions have significantly increased in recent years. In 2014, Commission issued a rule that applied to magnet sets, which are a subset of the subject magnet products addressed in this rule. The 2014 magnet sets rule took effect in April 2015 and remained in effect until it was vacated and remanded by the U.S. Court of Appeals for the Tenth Circuit Court in November 2016. *Zen Magnets, LLC v. Consumer Prod. Safety Comm’n.*, 841 F.3d 1141 (10th Cir. 2016). ED-treated ingestions of magnets from subject magnet products continued to rise since the 2014 magnets set rule was

vacated. A review of the annual estimates for ED-treated, magnet ingestions by year, from 2010 through 2021 showed that magnet ingestions are higher for the 2017 through 2021 period, than the previous periods, with more in-scope magnet ingestions in 2021 (2,500) than most of the preceding years, including 2018 through 2020. To assess these trends further, CPSC grouped the years in relation to the vacated 2014 magnet sets rule, using three separate periods. CPSC reviewed the magnet ingestions treated in U.S. hospital EDs for the periods 2010 through 2013 (years prior to the announcement of the 2014 magnet sets rule), 2014 through 2016 (years when the 2014 magnet sets rule was announced and in effect), and 2017 through 2021 (years after the magnet set rule was vacated). For 2010–2013, there were approximately 2,300 ED-treated magnet ingestion incidents per year; for 2014–2016, there were an approximately 1,300 ED-treated magnet ingestion incidents per year; for 2017–2021, there were approximately 2,400 ED-treated magnet ingestion incidents per year. Thus, during the period when the 2014 magnet sets rule was announced and in effect (2014–2016), magnet injury ingestion estimates are lowest by a significant margin, compared with the earlier and more recent periods. CPSC data also showed a similar decline in incidents for the period when the magnet sets rule was announced and in effect. CPSC's assessment of incident data, as well as other researchers' assessments of NEISS data, and national poison center data, all indicated that magnet ingestion cases significantly declined during the years when the 2014 magnet sets rule was announced and in effect, compared to the periods before and after the 2014 magnet sets rule.

(4) For these reasons, the Commission finds that the rule is reasonably necessary to eliminate or reduce an unreasonable risk of injury associated with the product.

(g) *Public interest.* This rule is intended to address an unreasonable risk of injury and death posed by magnet ingestions. The Commission finds that compliance with the requirements of the rule will significantly reduce magnet ingestion deaths and injuries in the

future; thus, the Commission finds that promulgation of the rule is in the public interest.

(h) *Voluntary standards.* (1) The Commission is aware of six relevant standards, four domestic and two international, that address the magnet ingestion hazard. One standard is mandatory, ASTM F963–17, *Standard Consumer Safety Specification for Toy Safety* (incorporated by reference at §§ 1262.4 and 1250.2 of this chapter). The other voluntary standards include: ASTM F2923–20, *Standard Specification for Consumer Product Safety for Children's Jewelry*; ASTM F2999–19, *Standard Consumer Safety Specification for Adult Jewelry*; ASTM F3458–21, *Standard Specification for Marketing, Packaging, and Labeling Adult Magnet Sets Containing Small, Loose, Powerful Magnets (with a Flux Index $\geq 50 \text{ kG}^2 \text{ mm}^2$)* (see § 1262.4 for the availability of ASTM standards from ASTM International); EN-71-1: 2014, *Safety of Toys; Part 1: Mechanical and Physical Properties* (available from EN European Standards; Krimicka 134, 318 00 Pilsen, Czech Republic, phone: 420 377 921 379; www.en-standard.eu); and ISO 8124-1: 2018, *Safety of Toys—Part 1: Safety Aspects Related to Mechanical and Physical Properties* (available from International Organization for Standardization; Chemin de Blandonnet 8, CP 401-1214 Vernier, Geneva, Switzerland; phone: 41 22 749 01 11; www.iso.org).

(2) The Commission finds that compliance with existing standards is not likely to result in the elimination or adequate reduction of the risk of injury associated with ingestion of subject magnet products.

(i) *Relationship of benefits to costs.* (1) CPSC estimates that aggregate annual societal costs from ingestion injuries involving subject magnet products for 2017 through 2021 totaled \$51.8 million, even when ingestion injuries involving unidentified magnet products are excluded. The expected costs of the rule include the lost value experienced by consumers who would no longer be able to purchase subject magnet products with loose or separable hazardous magnets, as well as the lost profits to firms that could not produce and sell non-complying products in the future. Estimates of consumer and producer

surplus range from about \$2 million to \$3.5 million to about \$20 million to \$35 million, based on unit sales ranging from 100,000 to 1 million. If annual unit sales of non-complying subject magnet products are 500,000, expected aggregate benefits from the rule would total \$51.8 million annually as noted above; costs (lost consumer and producer surplus) would range from \$10 million to \$17.5 million annually. Thus, the benefits of the rule would greatly exceed the costs.

(2) If unidentified magnet products involved in ingestion injuries, which are also likely to be subject magnet products, are considered as well, average annual societal costs for 2017 through 2021 would increase by \$167.9 million. A sensitivity analysis shows that adding even a relatively small portion of NEISS cases involving unidentified magnet products to the base case substantially increases the estimated gross benefits of the rule. Although CPSC's analysis of the data, the trends in NEISS, CPRMS, and poison center-reported, magnet-related incidents support the conclusion that the unidentified magnet products generally involved magnets considered within the scope of the rule, because CPSC does not know precisely how many of these products would fall within the scope of this rule, CPSC has not included them in the primary benefit analysis. Instead, CPSC includes the benefits from unidentified magnet products in this final rule's sensitivity analysis to illustrate the theoretical upper bounds of benefits from this rule. Theoretically, including 100 percent of these societal costs with those estimated for identified subject magnet products (\$51.8 million) could yield average annual societal costs of magnet ingestion injuries of \$219.7 million for the period 2017 through 2021.

(j) *Least burdensome requirement that would adequately reduce the risk of injury.* CPSC considered several less-burdensome alternatives to the rule.

(1) One alternative is to take no regulatory action and, instead, rely on existing standards to address the magnet ingestion hazard. This alternative would reduce the burden associated with the rule by avoiding a mandatory standard, but it is unlikely to ade-

quately address the magnet ingestion hazard due to the limited scope and requirements of existing standards and uncertainty regarding compliance with them.

(2) Another alternative is a mandatory standard with less stringent requirements than the proposed rule, such as a higher flux index limit, or different requirements for certain shapes and sizes of magnets. This could reduce the burden associated with a rule by allowing firms to market a wider variety of products than under the rule. However, this alternative would reduce the safety benefits because allowing certain hazardous magnets in subject magnet products to remain on the market does not address the hazard such products pose.

(3) Safety messaging is another alternative to the rule. This alternative would reduce the burdens associated with the rule because it would not require modifying or discontinuing subject magnet products, and the costs of such warnings and instructional information likely would be small. However, this alternative is not likely to adequately reduce the magnet ingestion hazard. Incident data shows children commonly access ingested magnets from sources that do not include the product packaging where warnings are provided. Incident data, behavioral and developmental factors, and other information indicate that children and caregivers commonly disregard safety messaging regarding the magnet ingestion hazard. Finally, this approach has not been effective at adequately reducing the hazard, to date.

(4) Another alternative is to require special packaging to limit children's access to subject magnet products. Although this alternative would create some packaging costs, those costs likely would be lower than the costs of the rule because this alternative would allow subject magnet products to remain unchanged. However, this alternative is not likely to adequately reduce the risk of injury and death associated with magnet ingestions. Consumers are unlikely to repackage all magnets after each use, given the small size and large number of magnets in products, the potential to lose

magnets, and consumers' underappreciation of the hazard. In addition, commercially reasonable packaging requirements would only prevent young children (typically, children under 5 years old) from accessing the product, not older children, or teens, who are involved in the majority of magnet ingestion incidents.

(5) Another alternative is to require subject magnet products to be coated with aversive agents. This alternative would reduce the burden associated with the rule because it would allow firms to continue to sell subject magnet products and the costs of such coatings likely would be small. However, such requirements are not likely to adequately address the hazard because they do not address ingestions that occur when the first magnet is placed in the victim's mouth, before the aversive agent is detected, accidental ingestions, or children who are developmentally inclined to place objects in their mouths.

(6) Another alternative is to provide a later effective date for the final rule. This may reduce the burdens associated with the rule by spreading them over a longer period, but it would also delay the safety benefits of the rule.

(7) For these reasons, the Commission finds that the rule imposes the least burdensome requirement that prevents or adequately reduces the risk of injury associated with magnet ingestions.

PART 1263—SAFETY STANDARD FOR BUTTON CELL OR COIN BATTERIES AND CONSUMER PRODUCTS CONTAINING SUCH BATTERIES

Sec.

1263.1 Scope, purpose, effective date, and exemption.

1263.2 Definitions.

1263.3 Requirements for consumer products containing button cell or coin batteries.

1263.4 Requirements for labeling of button cell or coin battery packaging.

AUTHORITY: 15 U.S.C. 2052, 2056e.

SOURCE: 88 FR 65295, Sept. 21, 2023, unless otherwise noted.

§ 1263.1 Scope, purpose, effective date, and exemption.

(a) *Scope and purpose.* As required by Reese's Law (15 U.S.C 2056e, Pub. L. 117–171), this part establishes performance and labeling requirements for consumer products containing button cell or coin batteries to prevent child access to batteries during reasonably foreseeable use and misuse of the consumer product. The part is intended to eliminate or adequately reduce the risk of injury and death to children 6 years old and younger from ingesting these batteries. This part also establishes warning label requirements for packaging of consumer products containing button cell or coin batteries, these consumer products, and instructions and manuals accompanying these consumer products. Additionally, this part establishes warning label requirements for packaging of button cell or coin batteries, including button cell or coin batteries packaged separately with a consumer product.

(b) *Effective date.* Except as provided in paragraph (c) of this section, the effective date of §1263.3 is October 23, 2023. Packages of button cell or coin batteries manufactured or imported after September 21, 2024, must meet the labeling requirements for battery packaging in §1263.4.

(c) *Exemption for toy products.* Any object designed, manufactured, or marketed as a plaything for children under 14 years of age that is in compliance with the battery accessibility and labeling requirements of 16 CFR part 1250 is exempt from the requirements of this part.

(d) *Batteries that do not present an ingestion hazard.* Button cell or coin batteries that the Commission has determined do not present an ingestion hazard are not subject to this part. These are: zinc-air button cell or coin batteries.

[88 FR 65295, Sept. 21, 2023, as amended at 88 FR 65303, Sept. 21, 2023]

§ 1263.2 Definitions.

In addition to the definitions given in section 3 of the Consumer Product Safety Act (15 U.S.C. 2052) and section 5 of Reese's Law (Notes to 15 U.S.C.