and (a)(4), engineering control measures (e.g., physical containment, exhaust control ventilation, or isolation) or administrative control measures (e.g., workplace policies and procedures) shall be considered and implemented to prevent exposure, where feasible. The following National Institute for Occupational Safety and Health (NIOSH)-certified respirator with an assigned protection factor (APF) of at least 50 meets the minimum requirements for §721.63(a)(4): NIOSH-certified air-purifying, tight-fitting full-face respirator equipped with N–100, P–100, or R–100 filter.

(ii) Industrial, commercial, and consumer activities. Requirements as specified in §721.80(f), (k)(plastics additive to improve electrical, thermal and/or mechanical properties), (m), and (o).

(iii) Release to Water. Requirements as specified in §721.90(b)(1), and (c)(1).

(b) Specific requirements. The provisions of subpart A of this part apply to this section except as modified by this paragraph.

(1) Recordkeeping. Recordkeeping requirements as specified in §721.125(a), (b), (c), (d), (e), (i) and (k) are applicable to manufacturers, and processors of this substance.

(2) Limitations or revocation of certain notification requirements. The provisions of §721.185 apply to this section.


(a) Chemical substance and significant new uses subject to reporting. (1) The chemical substance identified generically as multi-walled carbon nanotubes (PMN P–10–39) is subject to reporting under this section for the significant new uses described in paragraph (a)(2) of this section. The requirements of this rule do not apply to quantities of the PMN substance after it has been completely reacted (cured); embedded or incorporated into a polymer matrix that itself has been reacted (cured); embedded in a permanent solid polymer, metal, glass, or ceramic form that is not intended to undergo further processing except for mechanical processing.

(2) The significant new uses are: (i) Protection in the workplace. Requirements as specified in §721.63(a)(1), (a)(2)(i), (a)(3), (a)(4), and (c). When determining which persons are reasonably likely to be exposed as required for §721.63(a)(1) and (a)(4), engineering control measures (e.g., physical containment, exhaust control ventilation, or isolation) or administrative control measures (e.g., workplace policies and procedures) shall be considered and implemented to prevent exposure, where feasible. The following National Institute for Occupational Safety and Health (NIOSH)-certified respirator with an approved protection factor (APF) of at least 50 meets the minimum requirements for §721.63(a)(4): NIOSH-certified air-purifying, tight-fitting full-face respirator equipped with N–100, P–100, or R–100 filter.

(ii) Industrial, commercial, and consumer activities. Requirements as specified in §721.80 (k), (m), (o), and (p)(120,000 kilograms of the aggregate of P–10–39 and P–10–40 the substance described in §721.10277).

(iii) Release to Water. Requirements as specified in §721.90(a)(1), (b)(1), and (c)(1).

(b) Specific requirements. The provisions of subpart A of this part apply to this section except as modified by this paragraph.

(1) Recordkeeping. Recordkeeping requirements as specified in §721.125(a), (b), (c), (d), (e), (i), and (k) are applicable to manufacturers, and processors of these substances.

(2) Limitations or revocation of certain notification requirements. The provisions of §721.185 apply to this section.

(3) Determining whether a specific use is subject to this section. The provisions of §721.1725(b)(1) apply to paragraph (a)(2)(ii) of this section.


(a) Chemical substance and significant new uses subject to reporting. (1) The chemical substance identified generically as single-walled and multi-walled carbon nanotubes (PMN P–10–40) is subject to reporting under this section for the significant new uses described in

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paragraph (a)(2) of this section. The requirements of this rule do not apply to quantities of the PMN substance after it has been completely reacted (cured); embedded or incorporated into a polymer matrix that itself has been reacted (cured); embedded in a permanent solid polymer, metal, glass, or ceramic form that is not intended to undergo further processing except for mechanical processing.

(2) The significant new uses are:

(i) Protection in the workplace. Requirements as specified in §721.63(a)(1), (a)(2)(i), (a)(3)(applicable to gloves only), (a)(4), (a)(6), (b)(concentration set at 1.0 percent), and (c). When determining which persons are reasonably likely to be exposed as required for §721.63(a)(1) and (a)(4), engineering control measures (e.g., physical containment, exhaust control ventilation, or isolation) or administrative control measures (e.g., workplace policies and procedures) shall be considered and implemented to prevent exposure, where feasible. The following National Institute for Occupational Safety and Health (NIOSH)-certified respirators with an assigned protection factor (APF) of at least 10 meet the minimum requirements for §721.63(a)(4):

(A) NIOSH-certified air-purifying, tight-fitting half-face respirator equipped with N100 (if oil aerosols absent), R100, or P100 filters;

(B) NIOSH-certified air-purifying, tight-fitting full-face respirator equipped with N100 (if oil aerosols absent), R100, or P100 filters;

(C) NIOSH-certified powered air-purifying respirator equipped with a loose-fitting hood or helmet and high efficiency particulate air (HEPA) filters;

(D) NIOSH-certified powered air-purifying respirator equipped with a tight-fitting facepiece (either half-face or full-face) and HEPA filters; or

(E) NIOSH-certified supplied-air respirator operated in pressure demand or continuous flow mode and equipped with a hood or helmet, tight-fitting facepiece (either half-face or full-face).

(ii) Industrial, commercial, and consumer activities. Requirements as specified in §721.80(k), (m), (o), and (p)(120,000 kilograms of the aggregate of P–10–40 and P–10–39 the substance described in §721.10276).

(iii) Release to Water. Requirements as specified in §721.90(a)(1), (b)(1), and (c)(1).

(b) Specific requirements. The provisions of subpart A of this part apply to this section except as modified by this paragraph.

(1) Recordkeeping. Recordkeeping requirements as specified in §721.125(a), (b), (c), (d), (e), (i), and (k) are applicable to manufacturers, and processors of these substances.

(2) Limitations or revocation of certain notification requirements. The provisions of §721.135 apply to this section.

(3) Determining whether a specific use is subject to this section. The provisions of §721.1725(b)(1) apply to paragraph (a)(2)(ii) of this section.

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