4830–01–P]

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Superfund Tax on Chemical Substances; Notice of Determinations to Add Substances to List of Taxable Substances

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice of determinations.

SUMMARY: This notice of determinations modifies the list of taxable substances to include the following 39 substances: acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54), bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80), chloroprene rubber, ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71), ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05), ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58), hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m= 38.86), isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90), poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96), emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83, n=2.53), solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16, n=32.85), emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26), solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50), hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_x$-$(C_3H_3N)_y$-$(C_{15}H_{24}O)_a$; x=2,783.05, y=1,907.27, a=5.74), bromobutyl isobutylene isoprene rubber ($(C_4H_8)_x(C_5H_8)_y(Br_2)_z$; x=7071, y=59, z=50), chlorobutyl isobutylene isoprene rubber ($(C_4H_8)_x(C_5H_8)_y(Cl_2)_z$); x=7036, y=88, z=70), DIPE–di-isopropyl ether, di-isodecyl phthalate, di-isononyl adipate, di-isononyl phthalate, di-tridecyl phthalate, ethylene propylene diene (EPDM) rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98), isodecyl alcohol, isodecyl benzoate, isooctyl alcohol, linear nonyl phthalate, linear nonyl undecyl phthalate, linear undecyl

phthalate, linear nonyl tri-mellitate, neo decanoic acid, neo pentanoic acid, nonene, regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88), tridecyl alcohol, tri-isononyl tri-mellitate, di-isobutylene, polyisobutylene, styrene-acrylonitrile ($(C_3H_3N)_a$-$(C_8H_8)_s$; a=0.26, s=0.74), and acrylonitrile butadiene styrene ($(C_3H_3N)_a$-$(C_4H_6)_b$-$(C_8H_8)_s$; a=0.16, b=0.10, s=0.74),

DATES: The effective date for purposes of the tax under section 4671 of the Internal Revenue Code (Code) for the taxable substances added to the list is January 1, 2026. For the effective date for purposes of refund claims under section 4662(e) of the Code for the taxable substances added to the list, see the determination for each substance.

FOR FURTHER INFORMATION CONTACT: Andrew Clark or Jacob Peeples at (202) 317-6855 (not a toll-free number).

SUPPLEMENTARY INFORMATION:

Background

Section 4671(a) of the Code imposes an excise tax on the sale or use of a taxable substance by the importer thereof (section 4671 tax). Section 4672(a)(1) of the Code defines the term *taxable substance* as any substance which, at the time of sale or use by the importer, is listed as a taxable substance by the Secretary of the Treasury or the Secretary's delegate (Secretary) on the list of taxable substances under section 4672(a) (List).

Under section 4672(a)(2), an importer or exporter of any substance may request that the Secretary determine whether such substance should be added to the List as a taxable substance or should be removed from the List. Under section 4672(a)(2)(B) and (a)(4) and (b)(2), the Secretary is required to add a substance to the List if the Secretary determines that any taxable chemicals that are listed in section 4661(b) of the Code constitute more than 20 percent of the weight, or more than 20 percent of the value, of the materials used to produce such substance, which determination is required

under section 4672(a)(2)(B) and (a)(4) to be made based on the predominant method of production (weight or value test). Section 4672(a)(4) authorizes the Secretary to remove a substance from the List only if such substance meets neither the weight nor the value test of section 4672(a)(2)(B).

Section 4672(a)(3) includes an initial list of taxable substances. Section 4 of Notice 2021-66 (2021-52 I.R.B. 901) provides the list of 101 substances that the Secretary added to the List before November 15, 2021. On May 31, 2024, the Secretary published a Notice of Determination in the *Federal Register* (89 FR 47238) adding polyoxymethylene to the List; this Notice of Determination was also published in the Internal Revenue Bulletin as Notice 2024-50 (2024-26 I.R.B. 1789). On August 4, 2025, the Secretary published a Notice of Determinations in the *Federal Register* (90 FR 36520) adding 21 substances to the List; this Notice of Determinations was also published in the Internal Revenue Bulletin as Notice 2025-41 (2025-34 I.R.B. 325). Rev. Proc. 2022-26 (2022-29 I.R.B. 90), *as modified by* Rev. Proc. 2023-20 (2023-15 I.R.B. 636), provides the exclusive procedures by which an importer, exporter, or interested person may request a determination that a particular substance be added to or removed from the List.

Section 4671(b)(3) authorizes the Secretary to prescribe a tax rate for taxable substances in lieu of the tax rate specified in section 4671(b)(2). The tax rate prescribed by the Secretary for a substance added to the List is calculated by multiplying the conversion factor for each taxable chemical used in the production of the substance by the corresponding tax rate for that taxable chemical under section 4661(b), and adding those results together. Conversion factors are determined based on the predominant method of production of the substance. *See* sections 8 and 10.04(8) of Rev. Proc. 2022-26. Importers are not required to use the prescribed tax rate for a taxable substance and may calculate their own rate under section 4671(b)(1).

Pursuant to Section 4672(a)(4), this notice of determinations modifies the List to include the 39 additional taxable substances listed in the Summary of Determinations section of this notice, as explained in the Requests to Add Substances to the List and General Explanation of Determinations sections of this notice. The determination for each specific substance added to the List is explained in parts 1 through 39 of the Modifications to the List of Taxable Substances section of this notice.

The updated List and prescribed tax rates for taxable substances will be included in the instructions to Form 6627, *Environmental Taxes*.

Summary of Determinations

On **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**, the Secretary determined to add the following substances to the List:

1. Acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54)
2. Bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80)
3. Chloroprene rubber
4. Ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71)
5. Ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05)
6. Ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58)
7. Hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m= 38.86)
8. Isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90)
9. Poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96)
10. Emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83, n=2.53)
11. Solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16, n=32.85)
12. Emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26)
13. Solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50)

14. Hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_x$-$(C_3H_3N)_y$-$(C_{15}H_{24}O)_a$; x=2,783.05, y=1,907.27, a=5.74)
15. Bromobutyl isobutylene isoprene rubber ($(C_4H_8)_x(C_5H_8)_y(Br_2)_z$; x=7071, y=59, z=50)
16. Chlorobutyl isobutylene isoprene rubber ($(C_4H_8)_x(C_5H_8)_y(Cl_2)_z$); x=7036, y=88, z=70)
17. DIPE–di-isopropyl ether
18. Di-isodecyl phthalate
19. Di-isononyl adipate
20. Di-isononyl phthalate
21. Di-tridecyl phthalate
22. Ethylene propylene diene (EPDM) rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98)
23. Isodecyl alcohol
24. Isodecyl benzoate
25. Isooctyl alcohol
26. Linear nonyl phthalate
27. Linear nonyl undecyl phthalate
28. Linear undecyl phthalate
29. Linear nonyl tri-mellitate
30. Neo decanoic acid
31. Neo pentanoic acid
32. Nonene
33. Regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88)
34. Tridecyl alcohol
35. Tri-isononyl tri-mellitate

36. Di-isobutylene
37. Polyisobutylene
38. Styrene-acrylonitrile ($(C_3H_3N)_a$-$(C_8H_8)_s$; a=0.26, s=0.74)
39. Acrylonitrile butadiene styrene ($(C_3H_3N)_a$-$(C_4H_6)_b$-$(C_8H_8)_s$; a=0.16, b=0.10, s=0.74)

Requests to Add Substances to the List

For each of the substances listed in the Summary of Determinations section of this notice, an importer or an exporter submitted a petition to the IRS in accordance with Rev. Proc. 2022-26 requesting a determination under section 4672(a)(2) to add the substance to the List. For each substance, the petition represented that taxable chemicals constitute more than 20 percent of the weight of materials used to produce the substance, based on the predominant method of production.

General Explanation of Determinations

After reviewing the petitions for each of the substances listed in the Summary of Determinations section of this notice, the Secretary determined that taxable chemicals constitute more than 20 percent by weight of the materials used to produce the substance, based on the predominant method of production. Therefore, each of the substances is added to the List as required under section 4672(a)(2) and (4). The Secretary made the determinations to add these substances to the List in accordance with the requirements of section 4672(a)(2) and (4), and pursuant to the procedures set forth in Rev. Proc. 2022-26, *as modified by* Rev. Proc. 2023-20.

The relevant information for each taxable substance is provided in the specific determinations included in parts 1 through 39 of the Modifications to the List of Taxable Substances section of this notice. The tax rate for each taxable substance, as prescribed by the Secretary, is provided in paragraph (a)(6) of each specific determination. All scientific information provided in the specific determinations reflects

the information provided by petitioners as published in each taxable substance's respective Notice of Filing.

Classification numbers proposed by each petitioner are included in paragraph (b) of each part, after each specific determination. The classification numbers provided with respect to a taxable substance are not part of the determination of whether it is added to the List and do not impact whether such substance is a taxable substance. Taxpayers may not rely on classification numbers for any purpose under sections 4661, 4662, 4671, and 4672, including (but not limited to) identification of a substance as a taxable substance on the List. Classification numbers may change over time. The Department of the Treasury (Treasury Department) and the IRS do not anticipate updating this document to reflect any such changes.

For purposes of the section 4671 tax, all the modifications in parts 1 through 39 of the Modifications to the List of Taxable Substances section of this notice are effective on and after January 1, 2026. For purposes of refund claims under section 4662(e), see the effective date for each specific determination in paragraph (a)(5)(ii) of each of parts 1 through 39 of the Modifications to the List of Taxable Substances section of this notice.

Modifications to the List of Taxable Substances

1. Determination to Add Acrylonitrile-butadiene Rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54) to the List. According to the petition, the taxable chemicals butadiene, propylene, and ammonia constitute 64.59 percent by weight of the materials used to produce acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54), based on the predominant method of production.

(a) *Determination*. Acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing acrylonitrile-butadiene rubber is through a radical polymerization of acrylonitrile and butadiene in an emulsion process. Acrylonitrile monomer is produced by the SOHIO process (i.e., catalytic ammoxidation of propylene).

(2) *Stoichiometric material consumption equation*:

n C_4H_6 (butadiene) + m [C_3H_6 (propylene) + NH_3 (ammonia) + 3/2 O_2] → $(C_4H_6)_n$-$(C_3H_3N)_m$ (acrylonitrile-butadiene rubber) + 3m H_2O

(3) *Reasons for the determination*: The acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14684) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butadiene, propylene, and ammonia constitute more than 20 percent by weight of the materials used in the production of acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.58 per ton. The conversion factors for the taxable chemicals used in the production of acrylonitrile-butadiene rubber ($(C_4H_6)_n$-$(C_3H_3N)_m$; n=13.44, m=25.54) are 0.35 for butadiene, 0.52 for propylene, and 0.21 for ammonia. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical by the tax rate for that taxable chemical: ((0.35 x $9.74) + (0.52 x $9.74) + (0.21 x $5.28) = $9.58).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.59.0000

(ii) *Schedule B number*: 4002.59.0000

(iii) *CAS number*: 9003-18-3

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

2. Determination to Add Bromo-isobutene-isoprene Rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80) to the List. According to the petition, the taxable chemicals butylene, bromine, and sodium hydroxide constitute 97.89 percent by weight of the materials used to produce bromo-isobutene-isoprene

rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80), based on the predominant method of production.

(a) *Determination*. Bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing bromo-isobutene-isoprene rubber involves reacting a hexane solution of butyl rubber with elemental bromine. Butyl rubber is produced via the cationic copolymerization of butylene with isoprene in the presence of a Friedel-Crafts catalyst at low temperature, around -100°C.

(2) *Stoichiometric material consumption equation*:

n C_4H_8 (butylene) + m C_5H_8 (isoprene) + m/2 Br_2 (bromine) + m/2 NaOH (sodium hydroxide) → $(C_4H_8)_n(C_5H_{7.5}Br_{0.5})_m$ (bromo-isobutene-isoprene rubber) + m/2 NaBr + m/2 H_2O

(3) *Reasons for the determination*: The bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14694) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butylene, bromine, and sodium hydroxide constitute more than 20 percent by weight of the materials used in the production of bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: April 1, 2023

(6) *Tax rate prescribed by the Secretary*: $9.72 per ton. The conversion factors for the taxable chemicals used in the production of bromo-isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_{7.5}Br_{0.5})_m$; n=98.20, m=1.80) are 0.97 for butylene, 0.03 for bromine, and 0.01 for sodium hydroxide. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical by the tax rate for that taxable chemical: ((0.97 x $9.74) + (0.03 x $8.90) + (0.01 x $0.56) = $9.72).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.39.0000

(ii) *Schedule B number*: 4002.39.0000

(iii) *CAS number*: 68441-14-5

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

3. Determination to Add Chloroprene Rubber to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of chloroprene rubber, submitted a petition in accordance with Rev. Proc. 2022-26

requesting to add chloroprene rubber to the List. According to the petition, the taxable chemicals butadiene, chlorine, and sodium hydroxide constitute 100 percent by weight of the materials used to produce chloroprene rubber, based on the predominant method of production.

(a) *Determination*. Chloroprene rubber is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing chloroprene rubber is through polymerization of chloroprene initiated by a radical initiator in an emulsion process. Chloroprene monomer is made from butadiene by first reacting it with chlorine in the gas phase at ca 500 K to form 3,4-dichlorobut-1-ene and 1,4-dichlorobut-2-ene. The former, on reaction with sodium hydroxide, yields chloroprene monomer.

(2) *Stoichiometric material consumption equation*:

n [C_4H_6 (butadiene) + Cl_2 (chlorine) + NaOH (sodium hydroxide)] →
$(C_4H_5Cl)_n$ (chloroprene rubber) + n NaCl + n H_2O

(3) *Reasons for the determination*: The chloroprene rubber petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14691) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butadiene, chlorine, and sodium hydroxide constitute more than 20 percent by weight of the materials used in the production of chloroprene rubber, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL**

REGISTER].

(5) *Effective dates for addition of chloroprene rubber to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $10.51 per ton. The conversion factors for the taxable chemicals used in the production of chloroprene rubber are 0.61 for butadiene, 0.80 for chlorine, and 0.45 for sodium hydroxide. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical by the tax rate for that taxable chemical: ((0.61 x $9.74) + (0.80 x $5.40) + (0.45 x $0.56) = $10.51).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.49.0000

(ii) *Schedule B number*: 4002.49.0000

(iii) *CAS number*: 9010-98-4

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 4002.99.0000

(ii) *Schedule B number*: 4002.99.0000

4. Determination to Add Ethylene-propylene-ethylidene Norbornene Rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82,

n=40.46, o=2.71)**,** submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71) to the List. According to the petition, the taxable chemicals ethylene, propylene, and butadiene constitute 95.05 percent by weight of the materials used to produce ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71), based on the predominant method of production.

(a) *Determination*. Ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing ethylene-propylene-ethylidene norbornene rubber is through the catalytic polymerization of ethylene, propylene, and nonconjugated diene monomers in a solution using various catalysts. Non-conjugated diene monomers include ethylidene norbornene and dicyclopentadiene. The nonconjugated diene monomers are produced from cyclopentadiene and butadiene, and cyclopentadiene, respectively.

(2) *Stoichiometric material consumption equation*:

m C_2H_4 (ethylene) + n C_3H_6 (propylene) + o [C_5H_6 (cyclopentadiene) + C_4H_6 (butadiene)] → $(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$ (ethylene-propylene-ethylidene norbornene rubber)

(3) *Reasons for the determination*: The ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14695) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this

determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals ethylene, propylene, and butadiene constitute more than 20 percent by weight of the materials used in the production of ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: April 1, 2023

(6) *Tax rate prescribed by the Secretary*: $9.25 per ton. The conversion factors for the taxable chemicals used in the production of ethylene-propylene-ethylidene norbornene rubber ($(C_2H_4)_m$-$(C_3H_6)_n(C_9H_{12})_o$; m=56.82, n=40.46, o=2.71) are 0.44 for ethylene, 0.47 for propylene, and 0.04 for butadiene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical by the tax rate for that taxable chemical: ((0.44 x $9.74) + (0.47 x $9.74) + (0.04 x $9.74) = $9.25).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.70.0000

(ii) *Schedule B number*: 4002.70.0000

(iii) *CAS number*: 25038-36-2

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

5. Determination to Add Ethylene Vinyl Acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05) to the List. According to the petition, the taxable chemicals ethylene and methane constitute 66.23 percent by weight of the materials used to produce ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05), based on the predominant method of production.

(a) *Determination*. Ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05) is through a solution polymerization employing the monomers of ethylene and vinyl acetate in tert-butanol as a solvent and a radical polymerization initiator.

(2) *Stoichiometric material consumption equation*:

n C_2H_4 (ethylene) + m [C_2H_4 (ethylene) + 1/2 CH_4 (methane) + 2 CO + 1/2 O_2] → $(C_2H_4)_n(C_4H_6O_2)_m$ (ethylene vinyl acetate (VA < 50%)) + 1/2m CO_2

(3) *Reasons for the determination*: The ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14688) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing

was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals ethylene and methane constitute more than 20 percent by weight of the materials used in the production of, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of ethylene vinyl acetate (VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.09 per ton. The conversion factors for the taxable chemicals used in the production of ethylene vinyl acetate ((VA < 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=78.95, m=21.05) are 0.70 for ethylene and 0.04 for methane. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical by the tax rate for that taxable chemical: ((0.70 x $9.74) + (0.04 x $6.88) = $7.09).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 3901.30.6000

(ii) *Schedule B number*: 3901.30.6000

(iii) *CAS number*: 24937-78-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

6. Determination to Add Ethylene Vinyl Acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58) to the List. According to the petition, the taxable chemicals ethylene and methane constitute 62.91 percent by weight of the materials used to produce ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58), based on the predominant method of production.

(a) *Determination*. Ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58) is through a solution polymerization employing the monomers of ethylene and vinyl acetate in tert-butanol as a solvent and a radical polymerization initiator.

(2) *Stoichiometric material consumption equation*:

n C_2H_4 (ethylene) + m [C_2H_4 (ethylene) + 1/2 CH_4 (methane) + 2 CO + 1/2 O_2] → $(C_2H_4)_n(C_4H_6O_2)_m$ (ethylene vinyl acetate (VA ≥ 50%)) + 1/2m CO_2

(3) *Reasons for the determination*: The ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14683) on April 3, 2025. The Treasury Department and the

IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals ethylene and methane constitute more than 20 percent by weight of the materials used in the production of, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $6.77 per ton. The conversion factors for the taxable chemicals used in the production of ethylene vinyl acetate (VA ≥ 50%) ($(C_2H_4)_n$-$(C_4H_6O_2)_m$; n=75.42, m=24.58) are 0.66 for ethylene and 0.05 for methane. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical by the tax rate for that taxable chemical: ((0.66 x $9.74) + (0.05 x $6.88) = $6.77).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 3905.29.0000

(ii) *Schedule B number*: 3905.29.0000

(iii) *CAS number*: 24937-78-8

(2) *The Secretary is unable to confirm the following classification numbers*: Not applicable.

7. Determination to Add Hydrogenated Acrylonitrile-Butadiene Rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86) to the List. According to the petition, the taxable chemicals butadiene, propylene, ammonia, and methane constitute 63.48 percent by weight of the materials used to produce hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86), based on the predominant method of production.

(a) *Determination*. Hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing hydrogenated acrylonitrile-butadiene rubber is via catalytic hydrogenation of acrylonitrile-butadiene rubber which is derived from the emulsion polymerization of butadiene and acrylonitrile.

(2) *Stoichiometric material consumption equation*:

n C_4H_6 (butadiene) + m [C_3H_6 (propylene) + NH_3 (ammonia) + 3/2 O_2] + n [1/4 CH_4 (methane) + 1/2 H_2O] → $(C_4H_8)_n$-$(C_3H_3N)_m$ (hydrogenated acrylonitrile-butadiene rubber) + 3m H_2O + 1/4n CO_2

(3) *Reasons for the determination*: The hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86) petition was filed on February 7, 2025.

The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14686) on April 3, 2025. The Treasury Department and the IRS received two non-substantive written comments in response to the notice of filing. One comment received by the IRS recommended prohibiting the manufacture of this substance. The other comment received by the IRS was unrelated to the determination for this substance. The comments did not address whether hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86) meets the weight or value test under section 4672(a)(2)(B). A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butadiene, propylene, ammonia, and methane constitute more than 20 percent by weight of the materials used in the production of, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.54 per ton. The conversion factors for the taxable chemicals used in the production of hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_n$-$(C_3H_3N)_m$; n=22.28, m=38.86) are 0.36 for butadiene, 0.49 for propylene,

0.20 for ammonia, and 0.03 for methane. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical by the tax rate for that taxable chemical: ((0.36 x $9.74) + (0.49 x $9.74) + (0.20 x $5.28) + (0.03 x $6.88) = $9.54).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.59.0000

(ii) *Schedule B number*: 4002.59.0000

(iii) *CAS number*: 308068-83-9

(2) *The Secretary is unable to confirm the following classification numbers*: Not applicable.

8. Determination To Add Isobutene-isoprene Rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90) submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90) to the List. According to the petition, the taxable chemical butylene constitutes 98.91 percent by weight of the materials used to produce isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90), based on the predominant method of production.

(a) *Determination*. Isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing isobutene-isoprene rubber is via the cationic copolymerization of butylene with isoprene in the presence of a Friedel-Crafts catalyst at low temperature, around -100°C. The

final product contains 0.7 wt% of additives.

(2) *Stoichiometric material consumption equation*:

n C_4H_8 (butylene) + m C_5H_8 (isoprene) → $(C_4H_8)_n(C_5H_8)_m$ (isobutene-isoprene rubber)

(3) *Reasons for the determination*: The isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14689) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical butylene constitutes more than 20 percent by weight of the materials used in the production of isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$; n=99.10, m=0.90) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.64 per ton. The conversion factor for the butylene used in the production of isobutene-isoprene rubber ($(C_4H_8)_n$-$(C_5H_8)_m$;

n=99.10, m=0.90) is 0.99. The tax rate is calculated by multiplying the conversion factor by the tax rate for butylene: (0.99 x $9.74 = $9.64).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.31.0000

(ii) *Schedule B number*: 4002.31.0000

(iii) *CAS number*: 9010-85-9

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

9. Determination to Add Poly(ethylene-propylene) Rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96) to the List. According to the petition, the taxable chemicals ethylene and propylene constitute 100 percent by weight of the materials used to produce poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96), based on the predominant method of production.

(a) *Determination*. Poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing poly(ethylene-propylene) rubber is through the catalytic polymerization of ethylene and propylene monomers in a solution using various catalysts.

(2) *Stoichiometric material consumption equation*:

m C_2H_4 (ethylene) + n C_3H_6 (propylene) → $(C_2H_4)_m$-$(C_3H_6)_n$ (poly(ethylene-

propylene) rubber)

(3) *Reasons for the determination*: The poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14690) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals ethylene and propylene constitute more than 20 percent by weight of the materials used in the production of poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.74 per ton. The conversion factors for the taxable chemicals used in the production of poly(ethylene-propylene) rubber ($(C_2H_4)_m$-$(C_3H_6)_n$; m=59.04, n=40.96) are 0.49 for ethylene and 0.51 for propylene. The

tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.49 x $9.74) + (0.51 x $9.74) = $9.74).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification number*: *CAS number*: 9010-71-1

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 3901.40.0000

(ii) *Schedule B number*: 3901.40.0000

10. Determination to Add Emulsion Styrene-butadiene Rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83, n=2.53) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83; n=2.53), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83; n=2.53) to the List. According to the petition, the taxable chemicals butadiene, benzene, and ethylene constitute 100 percent by weight of the materials used to produce emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83; n=2.53), based on the predominant method of production.

(a) *Determination*. Emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83; n=2.53) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing emulsion styrene-butadiene rubber is through the emulsion polymerization of butadiene and styrene initiated by free radicals. Styrene monomer is produced by the dehydrogenation of ethylbenzene. Ethylbenzene is produced via a Friedel-Crafts

reaction of benzene and ethylene.

(2) *Stoichiometric material consumption equation*:

m C_4H_6 (butadiene) + n [C_6H_6 (benzene) + C_2H_4 (ethylene)] → $(C_4H_6)_m$-$(C_8H_8)_n$ (emulsion styrene-butadiene rubber) + n H_2 (hydrogen)

(3) *Reasons for the determination*: The emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83; n=2.53) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14686) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butadiene, benzene, and ethylene constitute more than 20 percent by weight of the materials used in the production of emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83; n=2.53), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83; n=2.53) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.74 per ton. The conversion factors

for the taxable chemicals used in the production of emulsion styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=15.83; n=2.53) are 0.76 for butadiene, 0.18 for benzene, and 0.06 for ethylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.76 x $9.74) + (0.18 x $9.74) + (0.06 x $9.74) = $9.74).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS numbers*: 4002.19.0015 (rubber), 4002.11.0000 (latex)

(ii) *Schedule B numbers*: 4002.19.9000 (rubber), 4002.11.0000 (latex)

(iii) *CAS number*: 9003-55-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

11. Determination to Add Solution Styrene-butadiene Rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16, n=32.85) to the List

Arlanxeo USA LLC and Arlanxeo Canada Inc., importers and exporters of solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16; n=32.85), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16; n=32.85) to the List. According to the petition, the taxable chemicals butadiene, benzene, and ethylene constitute 100 percent by weight of the materials used to produce solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16; n=32.85), based on the predominant method of production.

(a) *Determination*. Solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16; n=32.85) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing solution styrene-butadiene rubber is through the anionic polymerization of butadiene

and styrene initiated by alkyl lithium compounds in hexanes as solvent. Styrene monomer is produced by the dehydrogenation of ethylbenzene. Ethylbenzene is produced via a Friedel-Crafts reaction of benzene and ethylene.

(2) *Stoichiometric material consumption equation*:

m C_4H_6 (butadiene) + n [C_6H_6 (benzene) + C_2H_4 (ethylene)] → $(C_4H_6)_m$-$(C_8H_8)_n$ (solution styrene-butadiene rubber) + n H_2 (hydrogen); m=67.16; n=32.85

(3) *Reasons for the determination*: The solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16; n=32.85) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14690) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butadiene, benzene, and ethylene constitute more than 20 percent by weight of the materials used in the production of solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16; n=32.85), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16; n=32.85) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc.*

2023-20): July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.74 per ton. The conversion factors for the taxable chemicals used in the production of solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=67.16; n=32.85) are 0.51 for butadiene, 0.36 for benzene, and 0.13 for ethylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.51 x $9.74) + (0.36 x $9.74) + (0.13 x $9.74) = $9.74).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification number*: *CAS number*: 9003-55-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 4002.19.0016

(ii) *Schedule B number*: 4002.19.1600

12. Determination to Add Emulsion Styrene Butadiene Rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26) to the List

Michelin North America, Inc., an importer of emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26) to the List. According to the petition, the taxable chemicals butadiene, benzene, and ethylene constitute 100 percent by weight of the materials used to produce emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26), based on the predominant method of production.

(a) *Determination*. Emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing

emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26) is through a low temperature, emulsion copolymerization of butadiene and styrene, using fatty and rosin acid soaps as an emulsifier, and organic hydroperoxides as an initiator. Styrene monomer is produced by the dehydrogenation of ethylbenzene. Ethylbenzene is produced via a Friedel-Crafts reaction of benzene and ethylene.

(2) *Stoichiometric material consumption equation*:

m C_4H_6 (butadiene) + n [C_6H_6 (benzene) + C_2H_4 (ethylene)] → $(C_4H_6)_m$-$(C_8H_8)_n$ (emulsion styrene butadiene rubber) + n H_2 (hydrogen); m=14.14; n=2.26

(3) *Reasons for the determination*: The emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14692) on April 3, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butadiene, benzene, and ethylene constitute more than 20 percent by weight of the materials used in the production of emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.74 per ton. The conversion factors for the taxable chemicals used in the production of emulsion styrene butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=14.14, n=2.26) are 0.76 for butadiene, 0.18 for benzene, and 0.06 for ethylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.76 x $9.74) + (0.18 x $9.74) + (0.06 x $9.74) = $9.74).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.19.0015

(ii) *Schedule B number*: 4002.19.9000

(iii) *CAS number*: 9003-55-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

13. Determination to Add Solution Styrene-butadiene Rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50) to the List

Michelin North America, Inc., an importer of solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50) to the List. According to the petition, the taxable chemicals butadiene, benzene and ethylene constitute 100 percent by weight of the materials used to produce solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50), based on the predominant method of production.

(a) *Determination*. Solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31,

n=2.50) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50) is through the continuous polymerization of butadiene and styrene initiated by alkyl lithium compounds in toluene or CMHC (cyclohexane and methylhexane) as solvents. Styrene monomer is produced by the dehydrogenation of ethylbenzene. Ethylbenzene is produced via a Friedel-Crafts reaction of benzene and ethylene.

(2) *Stoichiometric material consumption equation*:

m C_4H_6 (butadiene) + n [C_6H_6 (benzene) + C_2H_4 (ethylene)] → $(C_4H_6)_m$-$(C_8H_8)_n$ (solution styrene butadiene rubber) + n H_2 (hydrogen); m=13.31; n=2.5

(3) *Reasons for the determination*: The solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50) petition was filed on February 7, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14693) on April 3, 2025. The Treasury Department and the IRS received one non-substantive written comment on the necessity of the filing to understand its impact in response to the notice of filing. The comment did not address whether solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50) meets the weight or value test under section 4672(a)(2)(B). A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butadiene, benzene and ethylene constitute more than 20 percent by weight of the materials used in the production of solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50) to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.74 per ton. The conversion factors for the taxable chemicals used in the production of solution styrene-butadiene rubber ($(C_4H_6)_m$-$(C_8H_8)_n$; m=13.31, n=2.50) are 0.73 for butylene, 0.20 for benzene, and 0.07 for ethylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.73 x $9.74) + (0.20 x $9.74) + (0.07 x $9.74) = $9.74).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.19.0016

(ii) *Schedule B number*: 4002.19.1600

(iii) *CAS number*: 9003-55-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

14. Determination to Add Hydrogenated Acrylonitrile-butadiene Rubber ($(C_4H_8)_x$-$(C_3H_3N)_y$-$(C_{15}H_{24}O)_a$; x=2,783.05, y=1,907.27, a=5.74) to the List

Zeon Chemicals L.P., an importer and exporter of hydrogenated acrylonitrile-

butadiene rubber ($(C_4H_8)_x$-$(C_3H_3N)_y$-$(C_{15}H_{24}O)_a$; x=2,783.05, y=1,907.27, a=5.74), also known as "HNBR," submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add HNBR to the List. According to the petition, the taxable chemicals butadiene, propylene, ammonia, methane, butylene, toluene, sulfuric acid, and sodium hydroxide constitute 67.01 percent by weight of the materials used to produce HNBR, based on the predominant method of production.

(a) *Determination*. Hydrogenated acrylonitrile-butadiene rubber ($(C_4H_8)_x$-$(C_3H_3N)_y$-$(C_{15}H_{24}O)_a$; x=2,783.05, y=1,907.27, a=5.74) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing HNBR is via catalytic hydrogenation of acrylonitrile-butadiene rubber ("NBR") in a solution of acetone and in the presence of a catalyst. NBR is derived from the emulsion polymerization of butadiene and acrylonitrile. Acrylonitrile monomer is produced by the SOHIO process (*i.e.*, catalytic ammoxidation of propylene). Hydrogen is made from steam-methane reforming. Butylated hydroxytoluene is produced from the reaction of *p*-cresol with butylene. *p*-Cresol is prepared by a two-step route beginning with the sulfonation of toluene, followed by basic hydrolysis.

(2) *Stoichiometric material consumption equation*:

x C_4H_6 (butadiene) + y C_3H_6 (propylene) + y NH_3 (ammonia) + 3/2y O_2 + 1/2x CH_4 (methane) + x H_2O + a C_7H_8 (toluene) + a H_2SO_4 (sulfuric acid) + 2a NaOH (sodium hydroxide) + 2a C_4H_8 (butylene) → $(C_4H_8)_x$-$(C_3H_3N)_y$-$(C_{15}H_{24}O)_a$ (HNBR) + 1/2x CO_2 (carbon dioxide)+ (3y+2a) H_2O (water) + a Na_2SO_3 (sodium sulfite)+ x H_2[1] (hydrogen)

(3) *Reasons for the determination*: The HNBR petition was filed on February 14, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14685) on April 3, 2025, and a correction was

[1] The petition, and consequently the notice of filing, inadvertently omitted "x H_2" from the products side of the stoichiometric material consumption equation. This omission has no impact on the weight or value test. For clarity "x H_2" has been included here.

published in the *Federal Register* (90 FR 19245) on May 6, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals butadiene, propylene, ammonia, methane, butylene, toluene, sulfuric acid, and sodium hydroxide constitute more than 20 percent by weight of the materials used in the production of HNBR, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of HNBR to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: April 1, 2023

(6) *Tax rate prescribed by the Secretary*: $10.02 per ton. The conversion factors for the taxable chemicals used in the production of HNBR are 0.58 for butadiene, 0.31 for propylene, 0.13 for ammonia, 0.09 for methane, 0.002 for butylene, 0.002 for toluene, 0.002 for sulfuric acid, and 0.002 for sodium hydroxide. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.58 x $9.74) + (0.31 x $9.74) + (0.13 x $5.28) + (0.09 x $6.88) + (0.002 x $9.74) + (0.002 x $9.74) + (0.002 x $0.52) + (0.002 x $0.56) = $10.02).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.59.0000[2]

(ii) *Schedule B number*: 4002.59.0000

(iii) *CAS number*: 88254-10-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

15. Determination to Add Bromobutyl Isobutylene Isoprene Rubber (((C$_4$H$_8$)$_x$(C$_5$H$_8$)$_y$(Br$_2$)$_z$); x=7071, y=59, z=50) to the List

Exxon Mobil Corporation, an exporter of bromobutyl isobutylene isoprene rubber ((C$_4$H$_8$)$_x$(C$_5$H$_8$)$_y$(Br$_2$)$_z$; x=7071, y=59, z=50), also known as "BIIR," submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add BIIR to the List. According to the petition, the taxable chemicals isobutylene (an isomer of butylene) and bromine constitute 99.01 percent by weight of the materials used to produce BIIR, based on the predominant method of production.

(a) *Determination*. Bromobutyl isobutylene isoprene rubber ((C$_4$H$_8$)$_x$(C$_5$H$_8$)$_y$(Br$_2$)$_z$; x=7071, y=59, z=50) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of regular butyl rubber production is using a carbocationic polymerization reaction of isobutylene and a comonomer of isoprene. The catalyst system used is typically composed of aluminum chloride, boron trifluoride or similar dissolved in a methyl chloride solvent. Monomer feed of isobutylene and isoprene dissolved in a methyl chloride solvent are fed to a reactor operated at approximately -100°C to control the rapid exothermic polymerization

[2] The Notice of Filing erroneously stated that the HTSUS number as "4002.59.000" and the Schedule B number as "4002.59.000." These errors are corrected here.

reaction generating a high molecular weight butyl rubber polymer. To obtain this high molecular weight polymer it is necessary for the feed monomers to be as pure as possible ensuring that the feed system stays as dry as possible. The methyl chloride and unreacted monomers are flashed overhead and recycled back to the feed system while the polymer is precipitated out as a solid which is finished and packaged.

The polymerization process for BIIR starts with the exact same process for regular butyl rubber outlined above. A subsequent halogenation step is then carried out in a well agitated vessel to ionically substitute a bromine molecule to the polymer backbone while the polymer is dissolved in an appropriate solvent. The solvent is then flashed precipitating out a solid which is then baled and packaged.

(2) *Stoichiometric material consumption equation*:

7071 C_4H_8 (isobutylene) + 59 C_5H_8 (isoprene) + 50 Br_2 (bromine) → [7071 C_4H_8 + 59 C_5H_8 + 50 Br_2] (BIIR)

(3) *Reasons for the determination*: The BIIR petition was filed on April 8, 2025.[3] The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20346) on May 13, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals isobutylene (an isomer of butylene) and bromine constitute more than 20 percent by weight of the materials used in the production of BIIR, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL**

[3] The Notice of Filing erroneously stated the year of filing as 2023. This error is corrected here.

REGISTER].

(5) *Effective dates for addition of BIIR to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.63 per ton. The conversion factors for the taxable chemicals used in the production of BIIR are 0.97 for butylene and 0.02 for bromine. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.97 x $9.74) + (0.02 x $8.90) = $9.63).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.39.00

(ii) *Schedule B number*: 4002.39.00

(iii) *CAS number*: 68441-14-5

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

16. Determination to Add Chlorobutyl Isobutylene Isoprene Rubber ($(C_4H_8)_x(C_5H_8)_y(Cl_2)_z$); x=7036, y=88, z=70) to the List

Exxon Mobil Corporation, an exporter of chlorobutyl isobutylene isoprene rubber ($(C_4H_8)_x(C_5H_8)_y(Cl_2)_z$); x=7036, y=88, z=70), also known as “CIIR,” submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add CIIR to the List. According to the petition, the taxable chemicals isobutylene (an isomer of butylene) and chlorine constitute 98.50 percent by weight of the materials used to produce CIIR, based on the

predominant method of production.

(a) *Determination*. Chlorobutyl isobutylene isoprene rubber ($(C_4H_8)_x(C_5H_8)_y(Cl_2)_z$); x=7036, y=88, z=70) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of production of regular butyl rubber is using a carbocationic polymerization reaction of isobutylene and a comonomer of isoprene. The catalyst system used is typically composed of aluminum chloride, boron trifluoride or similar with an initiator dissolved in a methyl chloride solvent. Monomer feed of isobutylene and isoprene dissolved in a methyl chloride solvent are fed to a reactor operated at approximately -100ºC to control the rapid exothermic polymerization reaction generating a high molecular weight regular butyl rubber polymer. To obtain this high molecular weight polymer it is necessary for the feed monomers to be as pure as possible as well as ensuring that the feed system stays as dry as possible. The methyl chloride and unreacted monomers are flashed overhead and recycled back to the feed system while the polymer is precipitated out as a solid which is then baled and packaged.

The polymerization process for CIIR starts with the exact same process for regular butyl rubber outlined above. A subsequent halogenation step is then carried out in a well agitated vessel to ionically substitute a chlorine molecule to the polymer backbone while the polymer is dissolved in an appropriate solvent. The solvent is then flashed, precipitating out a solid which is then baled and packaged.

(2) *Stoichiometric material consumption equation*:

7036 C_4H_8 (isobutylene) + 88 C_5H_8 (isoprene) + 70 Cl_2 (chlorine) → [7036 C_4H_8 + 88 C_5H_8 + 70 Cl_2] (CIIR)

(3) *Reasons for the determination*: The CIIR petition was filed on April 8, 2025. The notice of filing summarizing the petition and requesting comments was published in

the *Federal Register* (90 FR 20350) on May 13, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals isobutylene (an isomer of butylene) and chlorine constitute more than 20 percent by weight of the materials used in the production of CIIR, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of CIIR to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.50 per ton. The conversion factors for the taxable chemicals used in the production of CIIR are 0.97 for butylene and 0.01 for chlorine. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.97 x $9.74) + (0.01 x $5.40) = $9.50).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.39.00

(ii) *Schedule B number*: 4002.39.00

(iii) *CAS number*: 68081-82-3

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

17. Determination to Add DIPE–Di-isopropyl Ether to the List

Exxon Mobil Corporation, an exporter of DIPE–di-isopropyl ether submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add DIPE–di-isopropyl ether to the List. According to the petition, the taxable chemical propylene constitutes 82.40 percent by weight of the materials used to produce DIPE–di-isopropyl ether, based on the predominant method of production.

(a) *Determination*. DIPE–di-isopropyl ether is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: DIPE–di-isopropyl ether is produced via isopropyl alcohol (IPA) production using a two-step indirect hydration process. A mixed propane/propylene stream is reacted with aqueous sulfuric acid to form a H_2SO_4/propylene extract. The formed isopropyl hydrogen sulfate is further reacted with additional IPA under acidic conditions to form DIPE–di-isopropyl ether such that two moles of isopropanol are converted to one mole of DIPE–di-isopropyl ether and one mole of water.

(2) *Stoichiometric material consumption equation*:

2 C_3H_6 [propylene] + H_2O [water] → $C_6H_{14}O$ [DIPE–di-isopropyl ether]

(3) *Reasons for the determination*: The DIPE–di-isopropyl ether petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21126) on May 16, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical propylene constitutes more than 20 percent by weight of the materials used in the production of DIPE–di-isopropyl ether, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of DIPE–di-isopropyl ether to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.99 per ton. The conversion factor for the propylene used in the production of DIPE–di-isopropyl ether is 0.82. The tax rate is calculated by multiplying the conversion factor by the tax rate for propylene: (0.82 x $9.74 = $7.99).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 2909.19.18.00

(ii) *Schedule B number*: 2909.19.18.00

(iii) *CAS number*: 108-20-3

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

18. Determination to Add Di-isodecyl Phthalate to the List

Exxon Mobil Corporation, an exporter of di-isodecyl phthalate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add di-isodecyl phthalate to the List. According to the petition, the taxable chemicals propylene and orthoxylene (an isomer of xylene) constitute 64.50 percent by weight of the materials used to produce di-isodecyl phthalate, based on the predominant method of production.

(a) *Determination*. Di-isodecyl phthalate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing di-isodecyl phthalate is via esterification.

This process can be readily carried out in heated kettles with agitation and provision for water takeoff. Esterification catalysts (*e.g.*, sulfuric acid or p-toluenesulfonic acid) speed the reaction and are neutralized, washed, and then removed. The purity requirements for commercial plasticizers are very high; phthalate esters are usually colorless and are mostly odorless. In the case of phthalates, the esterification is carried out through the reaction of phthalic anhydride and 2-ethylhexanol to produce dioctyl phthalate (DOP).

This reaction usually requires an excess of alcohol, which is readily recycled. Analogous syntheses yield aliphatic dicarboxylic acid esters, benzoates, and trimellitates.

(2) *Stoichiometric material consumption equation*:

5.45 C_3H_6 [propylene] + 0.35 C_5H_{10} [amylene] + 2 CO [carbon monoxide] + 4 H_2 [hydrogen] + C_8H_{10} [orthoxylene] + 3 O_2 [oxygen] → $C_{28}H_{46}O_4$ [di-isodecyl phthalate] + 4 H_2O [water]

(3) *Reasons for the determination*: The di-isodecyl phthalate petition was filed on April 8, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20354) on May 13, 2025. The Treasury

Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals propylene and orthoxylene (an isomer of xylene) constitute more than 20 percent by weight of the materials used in the production of di-isodecyl phthalate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of di-isodecyl phthalate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.31 per ton. The conversion factors for the taxable chemicals used in the production of di-isodecyl phthalate are 0.51 for propylene and 0.24 for xylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.51 x $9.74) + (0.24 x $9.74) = $7.31).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*: Not applicable.

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2917.33.00.10

(ii) *Schedule B number*: 2917.33.00.10

(iii) *CAS number*: 68515-49-1

19. Determination to Add Di-isononyl Adipate to the List

Exxon Mobil Corporation, an exporter of di-isononyl adipate, also known as "DINA," submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add DINA to the List. According to the petition, the taxable chemicals propylene, benzene, and nitric acid constitute 79.20 percent by weight of the materials used to produce DINA, based on the predominant method of production.

(a) *Determination*. Di-isononyl adipate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: DINA is produced via esterification. The di-isononyl adipate di-ester is made by reacting primary isononyl (C9) alcohol with adipic acid. The ester is produced by esterification of two moles of isononyl C9 alcohol and one mole of adipic acid in the presence of a catalyst.

By using excess alcohol (up to 30% molar excess of C9 alcohol) and removing the water, the equilibrium is shifted towards the formation of the di-ester. The reactants are charged into a reactor and heated up. The reaction rate is accelerated by using, for example, tetra-n-butyl titanate introduced at high temperature (140°C – 250°C), while removing the water formed.

Excess alcohol is distilled from the ester by vacuum prior to neutralization and recycled into subsequent batches. The final ester is purified by neutralizing with a base such as an aqueous solution of sodium carbonate. The remaining excess water is distilled off and the ester is then filtered using filter agents. The degree of purity of the ester has a minimum 99.0 wt%.

(2) *Stoichiometric material consumption equation*:

4.82 C_3H_6 [propylene] + 0.30 C_5H_{10} [amylene] + 2 CO [carbon monoxide] + 7 H_2 [hydrogen] + C_6H_6 [benzene] + 0.50 O_2 [oxygen] + 2 HNO_3 [nitric acid] → $C_{24}H_{46}O_4$ [di-isononyl adipate] + 4 H_2O [water] + N_2O [nitrous oxide]

(3) *Reasons for the determination*: The DINA petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21131) on May 16, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals propylene, benzene, and nitric acid constitute more than 20 percent by weight of the materials used in the production of DINA, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of DINA to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.07 per ton. The conversion factors for the taxable chemicals used in the production of DINA are 0.51 for propylene, 0.20 for benzene, and 0.32 for nitric acid. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.51 x $9.74) + (0.20 x $9.74) + (0.32 x $0.48) = $7.07).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 2917.12.20.00

(ii) *Schedule B number*: 2917.12.2000

(iii) *CAS number*: 33703–08–1

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

20. Determination to Add Di-isononyl Phthalate to the List

Exxon Mobil Corporation, an exporter of di-isononyl phthalate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add di-isononyl phthalate to the List. According to the petition, the taxable chemicals propylene and orthoxylene (an isomer of xylene) constitute 62.90 percent by weight of the materials used to produce di-isononyl phthalate, based on the predominant method of production.

(a) *Determination*. Di-isononyl phthalate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing di-isononyl phthalate is via esterification.

Most plasticizers are products of simple esterification reactions, which can be readily carried out in heated kettles with agitation and provision for water takeoff. While some plants produce plasticizers by such batch methods, newer, highly automated plants operate continuously, particularly if they emphasize a single product. Esterification catalysts (*e.g.* sulfuric acid or p-toluenesulfonic acid) speed the reaction and are neutralized, washed, and then removed. The purity requirements for commercial plasticizers are very high; phthalate esters are usually colorless and are mostly odorless. The reaction usually requires an excess of alcohol, which is readily

recycled. Analogous syntheses yield aliphatic dicarboxylic acid esters, benzoates, and trimellitates.

The hydrogen used for these reactions is not produced from steam-methane reforming; the source is from a POx reactor, which feeds liquids, not methane. The POx process is an industrial process that converts hydrocarbons feeds into syngas (a combination of H_2 and CO gas). The hydrocarbon feed is in the liquid state; it does not feed gas (such as methane) or solids. The unit feeds a variety of liquid hydrocarbons such as paraffins, olefins, and aromatics in the C9-C20 range, obtained from the refinery pipestills and other chemicals units.

(2) *Stoichiometric material consumption equation*:

5.12 x 0.94 C_3H_6 [propylene] + 5.12 x 0.06 C_5H_{10} [amylene] + 2 CO [carbon monoxide] + 4 H_2 [hydrogen] + C_8H_{10} [orthoxylene] + 3 O_2 [oxygen] → $C_{26}H_{42}O_4$ [di-isononyl phthalate] + 4 H_2O [water]

(3) *Reasons for the determination*: The di-isononyl phthalate petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20551) on May 14, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals propylene and orthoxylene (an isomer of xylene) constitute more than 20 percent by weight of the materials used in the production of di-isononyl phthalate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of di-isononyl phthalate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.11 per ton. The conversion factors for the taxable chemicals used in the production of di-isononyl phthalate are 0.48 for propylene and 0.25 for xylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.48 x $9.74) + (0.25 x $9.74) = $7.11).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*: Not applicable.

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2917.33.00.50

(ii) *Schedule B number*: 2917.33.00.50

(iii) *CAS number*: 68515-48-0

21. Determination to Add Di-tridecyl Phthalate to the List

Exxon Mobil Corporation, an exporter of di-tridecyl phthalate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add di-tridecyl phthalate to the List. According to the petition, the taxable chemicals propylene and orthoxylene (an isomer of xylene) constitute 68.10 percent by weight of the materials used to produce di-tridecyl phthalate, based on the predominant method of production.

(a) *Determination*. Di-tridecyl phthalate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing di-tridecyl phthalate[4] is via esterification.

This process can be readily carried out in heated kettles with agitation and provision for water takeoff. Esterification catalysts (*e.g.*, sulfuric acid or p-toluenesulfonic acid) speed the reaction and are neutralized, washed, and then removed. The purity requirements for commercial plasticizers are very high; phthalate esters are usually colorless and are mostly odorless. In the case of phthalates, the esterification is carried out through the reaction of phthalic anhydride and 2-ethylhexanol to produce dioctyl phthalate (DOP).

This reaction usually requires an excess of alcohol, which is readily recycled. Analogous syntheses yield aliphatic dicarboxylic acid esters, benzoates, and trimellitates.

(2) *Stoichiometric material consumption equation*:

7.70 x 0.94 C_3H_6 [propylene] + 7.70 x 0.06 C_5H_{10} [amylene] + 2 CO [carbon monoxide] + 4 H_2 [hydrogen] + C_8H_{10} [orthoxylene] + 3 O_2 [oxygen] → $C_{34}H_{58}O_4$ [di-tridecyl phthalate] + 4 H_2O [water]

(3) *Reasons for the determination*: The di-tridecyl phthalate petition was filed on April 8, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20352) on May 13, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals propylene and orthoxylene

[4] The Notice of Filing for di-tridecyl phthalate had a typographical error misstating the name of the taxable substance in the predominant method of production section. This error is corrected here.

(an isomer of xylene) constitute more than 20 percent by weight of the materials used in the production of di-tridecyl phthalate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of di-tridecyl phthalate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.50 per ton. The conversion factors for the taxable chemicals used in the production of di-tridecyl phthalate are 0.57 for propylene and 0.20 for xylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.57 x $9.74) + (0.20 x $9.74) = $7.50).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*: Not applicable.

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2917.34.01.50

(ii) *Schedule B number*: 2917.34.0150

(iii) *CAS number*: 68515-47-9

22. Determination to Add Ethylene Propylene Diene (EPDM) Rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98) to the List

Exxon Mobil Corporation, an exporter of ethylene propylene diene (EPDM)

rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add EPDM rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98) to the List. According to the petition, the taxable chemicals ethylene, propylene, and butadiene constitute 97.41 percent by weight of the materials used to produce EPDM rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98), based on the predominant method of production.

(a) *Determination*. Ethylene propylene diene (EPDM) rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing EPDM rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98) is copolymerization of ethylene and propylene with or without a small amount of a non-conjugated diene.

(2) *Stoichiometric material consumption equation*:

5,134 C_2H_4 [ethylene] + 2,250 C_3H_6 [propylene] + 98 C_4H_6 [butadiene] + 98 C_5H_6 [cyclopentadiene] → (5,134 C_2H_4 + 2,250 C_3H_6 + 98 C_9H_{12}) [EPDM]

(3) *Reasons for the determination*: The EPDM rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98) petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21825) on May 21, 2025. The Treasury Department and the IRS received one non-substantive written comment regarding the effect of EPDM on the environment and wildlife in response to the notice of filing. The comment did not address whether EPDM rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98) meets the weight or value test under section 4672(a)(2)(B). A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals ethylene, propylene, and

butadiene constitute more than 20 percent by weight of the materials used in the production of EPDM rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of EPDM rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98) to the List:*

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.45 per ton. The conversion factors for the taxable chemicals used in the production of EPDM rubber ($(C_2H_4)_x(C_3H_6)_y(C_9H_{12})_z$; x=5134, y=2250, z=98) are 0.57 for ethylene, 0.38 for propylene, and 0.02 for butadiene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.57 x $9.74) + (0.38 x $9.74) + (0.02 x $9.74) = $9.45).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.70.00

(ii) *Schedule B number*: 4002.70.0000

(iii) *CAS number*: 25034-71-3

(2) *The Secretary is unable to confirm the following proposed classification*

numbers: Not applicable.

23. Determination to Add Isodecyl Alcohol to the List

Exxon Mobil Corporation, an exporter of isodecyl alcohol, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add isodecyl alcohol to the List. According to the petition, the taxable chemical propylene constitutes 72.00 percent by weight of the materials used to produce isodecyl alcohol, based on the predominant method of production.

(a) *Determination*. Isodecyl alcohol is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing isodecyl alcohol is in an oxonation reaction. Plasticizer alcohols, including isodecyl alcohol, are derived from the oxo reaction with branched olefins. Refinery-connected polygas units generate many of these olefins as purified cuts or fractions.

The hydrogen used for these reactions are not produced from steam-methane reforming. The source of hydrogen is from a Pox reactor, which feeds liquids, not methane. The Pox process is an industrial process that converts hydrocarbons feeds into syngas (a combination of hydrogen and carbon monoxide gas). The hydrocarbon feed is in the liquid state. The unit feeds a variety of liquid hydrocarbons such as paraffins, olefins, and aromatics in the C5-C20 range, obtained from the refinery pipestills and other chemicals units.

(2) *Stoichiometric material consumption equation*:

2.88 x 0.94 C_3H_6 [propylene] + 2.88 x 0.06 C_5H_{10} [amylene] + CO [carbon monoxide] + 2 H_2 [hydrogen] → $C_{10}H_{22}O$ [isodecyl alcohol]

(3) *Reasons for the determination*: The isodecyl alcohol petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21129) on May 16, 2025. The Treasury Department and the IRS received no written comments in response to the notice of

filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical propylene constitutes more than 20 percent by weight of the materials used in the production of isodecyl alcohol, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of isodecyl alcohol to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.01 per ton. The conversion factor for the propylene used in the production of isodecyl alcohol is 0.72. The tax rate is calculated by multiplying the conversion factor by the tax rate for propylene: (0.72 x $9.74 = $7.01).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification number*: *CAS number*: 68526-85-2

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 3823.70.60.00

(ii) *Schedule B number*: 3823.70.6000

24. Determination to Add Isodecyl Benzoate to the List

Exxon Mobil Corporation, an exporter of isodecyl benzoate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add isodecyl benzoate to the List. According to the petition, the taxable chemicals propylene and toluene constitute 69.10 percent by weight of the materials used to produce isodecyl benzoate, based on the predominant method of production.

(a) *Determination*. Isodecyl benzoate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing isodecyl benzoate is via esterification. The isodecyl benzoate ester is made by reacting primary isodecyl (C10) alcohol with benzoic acid. The ester is produced by esterification of one mole of isodecyl C10 alcohol and one mole of benzoic acid in the presence of a catalyst.

By using excess alcohol (up to 30% molar excess of C10 alcohol) and removing the water, the equilibrium is shifted towards the formation of the ester. The reactants are charged into a reactor and heated up. The reaction rate is accelerated by using, for example, tetra-n-butyl titanate introduced at high temperature (140°C – 250°C), while removing the water formed.

Excess alcohol is distilled from the ester by vacuum prior to neutralization and recycled into subsequent batches. The final ester is purified by neutralizing with a base such as an aqueous solution of sodium carbonate. The remaining excess water is distilled off and the ester is then filtered using filter agents. The degree of purity of the ester has a minimum 99.0 wt%.

(2) *Stoichiometric material consumption equation*:

2.71 C_3H_6 [propylene] + 0.17 C_5H_{10} [amylene] + CO [carbon monoxide] + 2 H_2 [hydrogen] + $C_6H_5CH_3$ [toluene] + 1.5 O_2 [oxygen] → $C_{17}H_{26}O_2$ [isodecyl benzoate] + 2 H_2O [water]

(3) *Reasons for the determination*: The isodecyl benzoate petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21130) on May 16, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals propylene and toluene constitute more than 20 percent by weight of the materials used in the production of isodecyl benzoate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of isodecyl benzoate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.60 per ton. The conversion factors for the taxable chemicals used in the production of isodecyl benzoate are 0.43 for propylene and 0.35 for toluene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.43 x $9.74) + (0.35 x $9.74) = $7.60).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification*

numbers: Not applicable.

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2916.31.50.00

(ii) *Schedule B number*: 2916.31.0002

(iii) *CAS number*: 131298-44-7

25. Determination to Add Isooctyl Alcohol to the List

Exxon Mobil Corporation, an exporter of isooctyl alcohol, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add isooctyl alcohol to the List. According to the petition, the taxable chemical propylene constitutes 68.10 percent by weight of the materials used to produce isooctyl alcohol, based on the predominant method of production.

(a) *Determination*. Isooctyl alcohol is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing isooctyl alcohol is in an oxonation reaction. Plasticizer alcohols, including isooctyl alcohol, are derived from the oxo reaction with branched olefins. Refinery-connected polygas units generate many of these olefins as purified cuts or fractions. For example, isooctyl alcohol is produced from heptene, which is an isomeric mixture of C7 olefins that are derived from the reaction of propylene and butylenes. The extent of branching in heptane depends on the reaction conditions and feedstock ratio at the polygas units. Since these conditions are variable, the specifications of the alcohol product may vary among producers.

The hydrogen used for these reactions are not produced from steam-methane reforming. The source of hydrogen is from POx reactor, which feeds liquids, not methane. The POx process is an industrial process that converts hydrocarbons feeds

into syngas (a combination of hydrogen and carbon monoxide gas). The hydrocarbon feed is in the liquid state. The unit feeds a variety of liquid hydrocarbons such as paraffins, olefins, and aromatics in the C5-C20 range, obtained from the refinery pipestills and other chemicals units.

(2) *Stoichiometric material consumption equation*:

2.24 x 0.94 C_3H_6 [propylene] + 2.24 x 0.06 C_5H_{10} [amylene] + CO [carbon monoxide] + 2 H_2 [hydrogen] → $C_8H_{18}O$ [isooctyl alcohol]

(3) *Reasons for the determination*: The isooctyl alcohol petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21126) on May 16, 2025. The Treasury Department and the IRS received one non-substantive written comment regarding the importance of evaluating the data in response to the notice of filing. The comment did not address whether isooctyl alcohol meets the weight or value test under section 4672(a)(2)(B). A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical propylene constitutes more than 20 percent by weight of the materials used in the production of isooctyl alcohol, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of isooctyl alcohol to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc.*

2023-20): July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $6.62 per ton. The conversion factor for the propylene used in the production of isooctyl alcohol is 0.68. The tax rate is calculated by multiplying the conversion factor by the tax rate for propylene: (0.68 x $9.74 = $6.62).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 2905.16.00.50

(ii) *Schedule B number*: 2905.16.0050

(iii) *CAS number*: 68526-83-0

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

26. Determination to Add Linear Nonyl Phthalate to the List

Exxon Mobil Corporation, an exporter of linear nonyl phthalate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add linear nonyl phthalate to the List. According to the petition, the taxable chemicals ethylene and orthoxylene (an isomer of xylene) constitute 67.40 percent by weight of the materials used to produce linear nonyl phthalate, based on the predominant method of production.

(a) *Determination*. Linear nonyl phthalate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing linear nonyl phthalate is via esterification.

The linear nonyl phthalate di-ester is made by reacting a mix of primary C9 alcohol with phthalic anhydride. The ester is produced by esterification of two moles of a linear C9 alcohol with one mole of phthalic anhydride in the presence of an acidic

catalyst.

By using excess alcohol (up to 25% molar excess of C9 alcohol) and removing the water, the equilibrium is shifted towards the formation of the di-ester. The reactants are charged into a reactor and heated up. The reaction rate is accelerated by using, for example, tetra-n-butyl titanate introduced at high temperature (140°C – 250°C), while removing the water formed.

The final ester is purified by neutralizing with a base such as an aqueous solution of sodium carbonate. Then excess alcohol is distilled off using steam/nitrogen stripping after neutralization. The remaining excess water is distilled off and the ester is then filtered using filter agents.

The degree of purity of the ester is up to > 99.5 wt%. The overall formula is $C_{26}H_{42}O_4$ and the molecular weight is 418 g/mole, based on an average carbon number of the alkyl groups, with 9 carbons being the predominant number.

The linear C9 alcohol is obtained through hydroformylation of octene. Octene is obtained through ethylene oligomerization. Hydroformylation is the reaction of octene, at high pressure and temperature in the presence of a catalyst, with syngas (a mixture of carbon monoxide and hydrogen). An alcohol with one carbon atom higher versus the starting olefin is obtained, hence octene gives nonanol. The hydroformylation induces 0.3 branches per molecule predominantly on the 2-postion carbon of the alcohol. phthalic anhydride is obtained through air oxidation of o.xylene.

(2) *Stoichiometric material consumption equation*:

8 C_2H_4 [ethylene] + 2 CO [carbon monoxide] + 4 H_2 [hydrogen] + C_8H_{10} [orthoxylene] + 3 O_2 [oxygen] → $C_{26}H_{42}O_4$ [linear nonyl phthalate] + 4 H_2O [water]

(3) *Reasons for the determination*: The linear nonyl phthalate petition was filed on April 8, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20348) on May 13, 2025. The Treasury

Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals ethylene and orthoxylene (an isomer of xylene) constitute more than 20 percent by weight of the materials used in the production of linear nonyl phthalate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of linear nonyl phthalate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.69 per ton. The conversion factors for the taxable chemicals used in the production of linear nonyl phthalate are 0.54 for ethylene and 0.25 for xylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.54 x $9.74) + (0.25 x $9.74) = $7.69).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification number*: *CAS number*: 68515-45-7

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2917.33.00.50

(ii) *Schedule B number*: 2917.33.0050

27. Determination to Add Linear Nonyl Undecyl Phthalate to the List

Exxon Mobil Corporation, an exporter of linear nonyl undecyl phthalate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add linear undecyl phthalate to the List. According to the petition, the taxable chemicals ethylene and orthoxylene (an isomer of xylene) constitute 69.14 percent by weight of the materials used to produce linear nonyl undecyl phthalate, based on the predominant method of production.

(a) *Determination*. Linear nonyl undecyl phthalate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing linear nonyl undecyl phthalate is via esterification. The linear nonyl undecyl phthalate di-ester is made by reacting a mix of primary C9 alcohol and primary C11 alcohol with phthalic anhydride. The ester is produced by esterification of one mole of a linear C9 alcohol and one mole of a linear C11 alcohol mix with one mole of phthalic anhydride in the presence of an acidic catalyst. By using excess alcohol (up to 25% molar excess of the alcohol mix) and removing the water, the equilibrium is shifted towards the formation of the di-ester. The reactants are charged into a reactor and heated up. The reaction rate is accelerated by using, for example, tetra-n-butyl titanate introduced at high temperature (140°C – 250°C), while removing the water formed. The final ester is purified by neutralizing with a base such as an aqueous solution of sodium carbonate. Then excess alcohol is distilled off using steam/nitrogen stripping after neutralization. The remaining excess water is distilled off and the ester is then filtered using filter agents. The degree of purity of the ester is up to >99.5 wt%.

The overall formula is $C_{28}H_{46}O_4$ and the molecular weight is 446 g/mole, based

on an average carbon number of the alkyl groups, which are C9 and C11 carbons. The linear C9/C11 alcohols are obtained through hydroformylation of octene/decene. octene/decene is obtained through ethylene oligomerization. Hydroformylation is the reaction of octene/decene, at high pressure and temperature in the presence of a catalyst, with syngas (a mixture of carbon monoxide and hydrogen). An alcohol with one carbon atom higher versus the starting olefin is obtained, hence octene/decene gives nonanol/undecanol. The hydroformylation induces 0.3 branches per molecule predominantly on the 2-postion carbon of the alcohol. Phthalic anhydride is obtained through air oxidation of orthoxylene.

The hydrogen used for these reactions is not produced from steam-methane reforming; the source is from a POx reactor, which feeds liquids, not methane. The POx process is an industrial process that converts hydrocarbons feeds into syngas (a combination of hydrogen and carbon monoxide gas). The hydrocarbon feed is in the liquid state; it does not feed gas (such as methane) or solids. The unit feeds a variety of liquid hydrocarbons such as paraffins, olefins, and aromatics in the C5-C20 range, obtained from the refinery pipestills and other chemicals units.

(2) *Stoichiometric material consumption equation*:

9 C_2H_4 [ethylene] + 2 CO [carbon monoxide] + 4 H_2 [hydrogen] + C_8H_{10} [orthoxylene] + 3 O_2 [oxygen] → $C_{28}H_{46}O_4$ [linear nonyl undecyl phthalate] + 4 H_2O [water]

(3) *Reasons for the determination*: The linear nonyl undecyl phthalate petition was filed on April 8, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20553) on May 14, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other

information in the petition shows that the taxable chemicals ethylene and orthoxylene (an isomer of xylene) constitute more than 20 percent by weight of the materials used in the production of linear nonyl undecyl phthalate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of linear nonyl undecyl phthalate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.89 per ton. The conversion factors for the taxable chemicals used in the production of linear nonyl undecyl phthalate are 0.57 for ethylene and 0.24 for xylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.57 x $9.74) + (0.24 x $9.74) = $7.89)

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 3812.20.10.00

(ii) *Schedule B number*: 3812.20.0000

(iii) *CAS number*: 68515-43-5

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

28. Determination to Add Linear Undecyl Phthalate to the List

Exxon Mobil Corporation, an exporter of linear undecyl phthalate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add linear undecyl phthalate to the List. According to the petition, the taxable chemicals ethylene and orthoxylene (an isomer of xylene) constitute 70.72 percent by weight of the materials used to produce linear undecyl phthalate, based on the predominant method of production.

(a) *Determination*. Linear undecyl phthalate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing linear undecyl phthalate di-ester is by reacting a mix of primary C11 alcohol with phthalic anhydride. The ester is produced by esterification of two moles of a linear C11 alcohol with one mole of phthalic anhydride in the presence of an acidic catalyst.

By using excess alcohol (up to 25% molar excess of C11 alcohol) and removing the water, the equilibrium is shifted towards the formation of the di-ester. The reactants are charged into a reactor and heated up. The reaction rate is accelerated by using, for example, tetra-n-butyl titanate introduced at high temperature (140°C – 250°C), while removing the water formed.

The final ester is purified by neutralizing with a base such as an aqueous solution of sodium carbonate. Then excess alcohol is distilled off using steam/nitrogen stripping after neutralization. The remaining excess water is distilled off and the ester is then filtered using filter agents.

The degree of purity of the ester is up to >99.5 wt%. The overall formula is $C_{30}H_{\mathbf{50}}O_4$ and the molecular weight is 474 g/mole, based on an average carbon number of the alkyl groups, with 11 carbons being the predominant number.

The linear C11 alcohol is obtained through hydroformylation of decene. Decene

is obtained through ethylene oligomerization. Hydroformylation is the reaction of decene, at high pressure and temperature in the presence of a catalyst, with syngas (a mixture of carbon monoxide and hydrogen). An alcohol with one carbon atom higher versus the starting olefin is obtained, hence decene gives undecanol. The hydroformylation induces 0.3 branches per molecule predominantly on the 2-position carbon of the alcohol. Phthalic anhydride is obtained through air oxidation of o.xylene.

(2) *Stoichiometric material consumption equation*:

10 C_2H_4 [ethylene] + 2 CO [carbon monoxide] + 4 H_2 [hydrogen] + C_8H_{10} [orthoxylene] + 3 O_2 [oxygen] → $C_{30}H_{50}O_4$ [linear undecyl phthalate] + 4 H_2O [water]

(3) *Reasons for the determination*: The linear undecyl phthalate petition was filed on April 8, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20353) on May 13, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals ethylene and orthoxylene (an isomer of xylene) constitute more than 20 percent by weight of the materials used in the production of linear undecyl phthalate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of linear undecyl phthalate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see*

sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20): July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.89 per ton. The conversion factors for the taxable chemicals used in the production of linear undecyl phthalate are 0.59 for ethylene and 0.22 for xylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.59 x $9.74) + (0.22 x $9.74) = $7.89)

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*: Not applicable.

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2917.33.00.50

(ii) *Schedule B number*: 2917.33.00.50

(iii) *CAS number*: 3648-20-2

29. Determination to Add Linear Nonyl Tri-mellitate to the List

Exxon Mobil Corporation, an exporter of linear nonyl tri-mellitate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add linear nonyl tri-mellitate to the List. According to the petition, the taxable chemical ethylene constitutes 53.90 percent by weight of the materials used to produce linear nonyl tri-mellitate, based on the predominant method of production.

(a) *Determination*. Linear nonyl tri-mellitate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of production of linear nonyl tri-mellitate is using an esterification reaction. The linear nonyl tri-mellitate tri-ester is made by reacting primary C9 alcohol with trimellitic anhydride. The

ester is produced by esterification of three moles of a linear C9 alcohol and one mole of trimellitic anhydride in the presence of an acidic catalyst.

By using excess alcohol (up to 30% molar excess of C9 alcohol) and removing the water, the equilibrium is shifted towards the formation of the tri-ester. The reactants are charged into a reactor and heated up. The reaction rate is accelerated by using, for example, tetra-n-butyl titanate introduced at high temperature (140°C – 250°C), while removing the water formed.

Excess alcohol is distilled from the ester by vacuum prior to neutralization and recycled into subsequent batches. The final ester is purified by neutralizing with a base such as an aqueous solution of sodium carbonate. The remaining excess water is distilled off and the ester is then filtered using filter agents.

The degree of purity of the ester has a minimum 99.0 wt%. The overall formula is $C_{36}H_{60}O_6$ and the molecular weight is 589 g.mol-1, based on the carbon numbers of the alkyl groups, with 9 carbons being the predominant number and the average (>97% C9). The alkyl groups typically have methyl- or ethyl- branching, with on average 0.3 branches per molecule typically found on the second carbon of the alkyl chain closest to the aromatic ring.

The linear C9 alcohol is obtained through hydroformylation of octene. Octene is obtained through ethylene oligomerization. Hydroformylation is the reaction of ctene at high pressure and temperature in the presence of a catalyst with syngas (a mixture of carbon monoxide and hydrogen). An alcohol with one carbon atom higher versus the starting olefin is obtained, hence octene gives nonanol. The hydroformylation induces 0.3 branches per molecule predominantly on the two-position carbon of the alcohol. Trimellitic anhydride is obtained through air oxidation of 1,2,4-trimethylbenzene.

(2) *Stoichiometric material consumption equation*:

12 C_2H_4 [ethylene] + 3 CO [carbon monoxide] + 6 H_2 [hydrogen] + $C_9H_4O_5$ [trimellitic anhydride] → $C_{36}H_{60}O_6$ [linear nonyl tri-mellitate] + 2 H_2O [water]

(3) *Reasons for the determination*: The linear nonyl tri-mellitate petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21125) on May 16, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical ethylene constitutes more than 20 percent by weight of the materials used in the production of linear nonyl tri-mellitate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of linear nonyl tri-mellitate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $5.55 per ton. The conversion factor for the ethylene used in the production of linear nonyl tri-mellitate is 0.57. The tax rate is calculated by multiplying the conversion factor by the tax rate for ethylene: (0.57 x $9.74 = $5.55).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 2917.39.20.00

(ii) *Schedule B number*: 2917.39.2000

(iii) *CAS number*: 220582-53-6

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

30. Determination to Add Neo Decanoic Acid to the List

Exxon Mobil Corporation, an exporter of neo decanoic acid, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add neo decanoic acid to the List. According to the petition, the taxable chemical propylene constitutes 66.20 percent by weight of the materials used to produce neo decanoic acid, based on the predominant method of production.

(a) *Determination*. Neo decanoic acid is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of production of neo decanoic acid is Koch synthesis.

(2) *Stoichiometric material consumption equation*:

2.88 x 0.94 C_3H_6 [propylene] + 2.88 x 0.06 C_5H_{10} [amylene] + CO [carbon monoxide] + H_2O [water] → $C_{10}H_{20}O_2$ [neo decanoic acid]

(3) *Reasons for the determination*: The neo decanoic acid petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21824) on May 21, 2025. The Treasury Department and the IRS received one non-substantive written comment cautioning against the danger of producing the substance in response to the notice of filing. The comment did not address whether neo decanoic acid meets the weight or value test under section 4672(a)(2)(B). A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this

determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical propylene constitutes more than 20 percent by weight of the materials used in the production of neo decanoic acid, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of neo decanoic acid to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $6.43 per ton. The conversion factor for the propylene used in the production of neo decanoic acid is 0.66. The tax rate is calculated by multiplying the conversion factor by the tax rate for propylene: (0.66 x $9.74 = $6.43).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification number*: *CAS number*: 26896-20-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2915.90.18.00

(ii) *Schedule B number*: 2915.90.0000

31. Determination to Add Neo Pentanoic Acid to the List

Exxon Mobil Corporation, an exporter of neo pentanoic acid, submitted a petition

in accordance with Rev. Proc. 2022-26 requesting to add neo pentanoic acid to the List. According to the petition, the taxable chemical isobutylene (an isomer of butylene) constitutes 54.90 percent by weight of the materials used to produce neo pentanoic acid, based on the predominant method of production.

(a) *Determination*. Neo pentanoic acid is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing neo pentanoic acid is via Koch synthesis. Isobutylene is reacted with carbon monoxide at >1000 psig and a highly acidic (Lewis acid) catalyst (Koch reaction) in a continuous, stirred tank reactor. The acid is sent to a distillation tower finishing section. Light rejects (paraffins, olefins, and light acids) are removed, prime neopentanoic acid is recovered at high purity (>99.7 wt%), and acidic byproducts removed.

(2) *Stoichiometric material consumption equation*:

C_4H_8 [isobutylene] + CO [carbon monoxide] + H_2O [water]→ $C_5H_{10}O_2$ [neo pentanoic acid]

(3) *Reasons for the determination*: The neo pentanoic acid petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20346) on May 13, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical isobutylene (an isomer of butylene) constitutes more than 20 percent by weight of the materials used in the production of neo pentanoic acid, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL**

REGISTER].

(5) *Effective dates for addition of neo pentanoic acid to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $5.36 per ton. The conversion factor for the butylene used in the production of neo pentanoic acid is 0.55. The tax rate is calculated by multiplying the conversion factor by the tax rate for butylene: (0.55 x $9.74 = $5.36)

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 2915.60.50.00

(ii) *Schedule B number*: 2915.60.0000

(iii) *CAS number*: 75-98-9

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

32. Determination to Add Nonene to the List

Exxon Mobil Corporation, an exporter of nonene, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add nonene to the List. According to the petition, the taxable chemical propylene constitutes 90.50 percent by weight of the materials used to produce nonene, based on the predominant method of production.

(a) *Determination*. Nonene is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing nonene is oligomerization.

Nonene (C_9H_{18}) and tetramer ($C_{12}H_{24}$) are olefins that are obtained by oligomerization of feedstock that contains propylene. Each product actually contains several isomeric olefins with varying degrees of branching and different positions of the olefinic double bond. Refinery-generated propylene is of sufficient quality to be used as the feedstock material. The most common process initiates the reaction with a supported phosphoric acid catalyst at temperatures ranging from 120°C to 225°C. Reaction temperature and feed composition determine the range of olefins in a given product stream. If the feedstock is a propylene-rich C3 stream, C9 and C12 olefins are the dominant products. Some processes that use a mixed C3/C4 feed generate a spectrum of products that also includes heptene (C7) and octene (C8). Distillation separates the mix into the desired product fractions. Nonene and tetramer have distillation ranges of 127°C-149°C and 182°C-215°C, respectively. Assuming 83 percent and 79 percent of theoretical yield for production of nonene and tetramer, respectively, 1.21 and 1.27 units of propylene are consumed per unit of nonene and tetramer produced, respectively.

(2) *Stoichiometric material consumption equation*:

2.88 x 0.94 C_3H_6 [propylene] + 2.88 x 0.06 C_5H_{10} [amylene] → C_9H_{18} [nonene]

(3) *Reasons for the determination*: The nonene petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21826) on May 21, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other

information in the petition shows that the taxable chemical propylene constitutes more than 20 percent by weight of the materials used in the production of nonene, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of nonene to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $8.77 per ton. The conversion factor for the propylene used in the production of nonene is 0.90. The tax rate is calculated by multiplying the conversion factor by the tax rate for propylene: (0.90 x $9.74 = $8.77).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification number*: *CAS number*: 68526-55-6[5]

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2901.29.50.00

(ii) *Schedule B number*: 2901.29.6000

33. Determination To Add Regular Butyl Rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88) to the List

Exxon Mobil Corporation, an exporter of regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$;

[5] The Notice of Filing for propylene erroneously stated that the CAS number is “68526-55-63.” This error is corrected here.

x=7036, y=88), submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88) to the List. According to the petition, the taxable chemical isobutylene (an isomer of butylene) constitutes 98.50 percent by weight of the materials used to produce regular butyl rubber, based on the predominant method of production.

(a) *Determination*. Regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88) is via cationic copolymerization of isobutylene with isoprene in the presence of a catalyst. The catalyst system used is typically composed of aluminum chloride, boron trifluoride or similar with an initiator dissolved in a methyl chloride solvent. Monomer feed of isobutylene and isoprene dissolved in a methyl chloride solvent are fed to a reactor operated at approximately -100ºC to control the rapid exothermic polymerization reaction generating a high molecular weight regular butyl rubber polymer. To obtain this high molecular weight polymer, it is necessary for the feed monomers to be as pure as possible as well as ensuring that the feed system stays as dry as possible. The methyl chloride and unreacted monomers are flashed overhead and recycled back to the feed system while the polymer is precipitated out as a solid which is baled and packaged.

(2) *Stoichiometric material consumption equation*:

7036 C_4H_8 [isobutylene] + 88 C_5H_8 [isoprene] → [7036 C_4H_8 + 88 C_5H_8] [butyl rubber]

(3) *Reasons for the determination*: The regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88) petition was filed on April 8, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20347) on May 13, 2025. The Treasury Department and the IRS received no written comments

in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical isobutylene (an isomer of butylene) constitutes more than 20 percent by weight of the materials used in the production of regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88), based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) Effective dates for addition of regular butyl rubber ($(C_4H_8)_x(C_5H_8)_y$; x=7036, y=88)to the List:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $9.64 per ton. The conversion factor for the butylene used in the production of regular butyl rubber ((C4H8)x(C5H8)y; x=7036, y=88) is 0.99. The tax rate is calculated by multiplying the conversion factor by the tax rate for butylene: (0.99 x $9.74 = $9.64).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 4002.31.0000

(ii) *Schedule B number*: 4002.31.0000

(iii) *CAS number*: 9010-85-9

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

34. Determination to Add Tridecyl Alcohol to the List

Exxon Mobil Corporation, an exporter of tridecyl alcohol, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add tridecyl alcohol to the List. According to the petition, the taxable chemical propylene constitutes 75.90 percent by weight of the materials used to produce tridecyl alcohol, based on the predominant method of production.

(a) *Determination*. Tridecyl alcohol is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing tridecyl alcohol is oxonation.

Tridecyl alcohol is derived from the oxo reaction with branched olefins. Refinery-connected polygas units generate many of these olefins as purified cuts or fractions.

Most commercial plants for hydroformylation of higher olefins use only cobalt hydrocarbonyl or modified cobalt-phosphine catalysts. Separation of Rh catalysts from higher aldehydes or alcohols is more difficult and expensive. In most cases for the plasticizer and detergent alcohol ranges (C6-C15), producers hydrogenate the aldehydes, which have no commercial significance, to alcohols.

(2) *Stoichiometric material consumption equation*:

3.85 x 0.94 C_3H_6 [propylene] + 3.85 x 0.06 C_5H_{10} [amylene] + CO [carbon monoxide] + 2 H_2 [hydrogen] → $C_{13}H_{28}O$ [tridecyl alcohol]

(3) *Reasons for the determination*: The tridecyl alcohol petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21824) on May 21, 2025. The Treasury

Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical propylene constitutes more than 20 percent by weight of the materials used in the production of tridecyl alcohol, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of tridecyl alcohol to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $7.40 per ton. The conversion factor for the propylene used in the production of tridecyl alcohol is 0.76. The tax rate is calculated by multiplying the conversion factor by the tax rate for propylene: (0.76 x $9.74 = $7.40).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification number*: *CAS number*: 68526-86-3

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 3823.70.60.00

(ii) *Schedule B number*: 3823.70.6000

35. Determination to Add Tri-isononyl Tri-mellitate to the List

Exxon Mobil Corporation, an exporter of tri-isononyl tri-mellitate, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add tri-isononyl tri-mellitate to the List. According to the petition, the taxable chemical propylene constitutes 47.30 percent by weight of the materials used to produce tri-isononyl tri-mellitate, based on the predominant method of production.

(a) *Determination*. Tri-isononyl tri-mellitate is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing tri-isononyl tri-mellitate is via esterification.

This process can be readily carried out in heated kettles with agitation and provision for water takeoff. Esterification catalysts (*e.g.*, sulfuric acid or p-toluenesulfonic acid) speed the reaction and are neutralized, washed, and then removed. The purity requirements for commercial plasticizers are very high; phthalate esters are usually colorless and are mostly odorless. In the case of phthalates, the esterification is carried out through the reaction of phthalic anhydride and 2-ethylhexanol to produce dioctyl phthalate (DOP).

This reaction usually requires an excess of alcohol, which is readily recycled. Analogous syntheses yield aliphatic dicarboxylic acid esters, benzoates, and trimellitates.

The tri-isononyl tri-mellitate tri-ester is made by reacting primary isononyl (C9) alcohol with trimellitic anhydride. The ester is produced by esterification of three moles of isononyl C9 alcohol and one mole of trimellitic anhydride in the presence of a catalyst.

By using excess alcohol (up to 30% molar excess of C9 alcohol) and removing

the water, the equilibrium is shifted towards the formation of the tri-ester. The reactants are charged into a reactor and heated up. The reaction rate is accelerated by using, for example, tetra-n-butyl titanate introduced at high temperature (140°C-250°C), while removing the water formed.

Excess alcohol is distilled from the ester by vacuum prior to neutralization and recycled into subsequent batches. The final ester is purified by neutralizing with a base such as an aqueous solution of sodium carbonate. The remaining excess water is distilled off and the ester is then filtered using filter agents. The degree of purity of the ester has a minimum 99.0 wt%.

(2) *Stoichiometric material consumption equation*:

7.22 C_3H_6 [propylene] + 0.46 C_5H_{10} [amylene] + 3 CO [carbon monoxide] + 6 H_2 [hydrogen] + $C_9H_4O_5$ [trimellitic anhydride] → $C_{36}H_{60}O_6$ [tri-isononyl trimellitate] + 2 H_2O [water]

(3) *Reasons for the determination*: The tri-isononyl tri-mellitate petition was filed on May 1, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 21827) on May 21, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical propylene constitutes more than 20 percent by weight of the materials used in the production of tri-isononyl tri-mellitate, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of tri-isononyl tri-mellitate to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: July 1, 2022

(6) *Tax rate prescribed by the Secretary*: $5.06 per ton. The conversion factor for the propylene used in the production of tri-isononyl tri-mellitate is 0.52. The tax rate is calculated by multiplying the conversion factor by the tax rate for propylene: (0.52 x $9.74 = $5.06).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 2917.39.20.00

(ii) *Schedule B number*: 2917.39.2000

(iii) *CAS number*: 53894-23-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

36. Determination to Add Di-isobutylene to the List

TPC Group, Inc., an exporter of di-isobutylene, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add di-isobutylene to the List. According to the petition, the taxable chemical isobutylene (an isomer of butylene) constitutes 100 percent by weight of the materials used to produce di-isobutylene, based on the predominant method of production.

(a) *Determination*. Di-isobutylene is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing

di-isobutylene is the cationic dimerization (polymerization) of isobutylene monomers. An acid catalyst (typically a sulfonic acid resin) and polar moderator are used to generate a stable cation on the tertiary carbon of isobutylene. This cation induces a chain growth dimerization that incorporates isobutylene monomer. The catalyst is not a component of the resulting di-isobutylene.

(2) *Stoichiometric material consumption equation*:

2 C_4H_8 (isobutylene) → C_8H_{16} (di-isobutylene)

(3) *Reasons for the determination*: The di-isobutylene petition was filed on April 8, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 20352) on May 13, 2025. The Treasury Department and the IRS received one non-substantive written comment on the necessity of the filing to understand its impact in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical butylene constitutes more than 20 percent by weight of the materials used in the production of di-isobutylene, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of di-isobutylene to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc.*

2023-20): October 1, 2024

(6) *Tax rate prescribed by the Secretary*: $9.74 per ton. The conversion factor for the isobutylene (an isomer of butylene) used in the production of di-isobutylene is 1.00. The tax rate is calculated by multiplying the conversion factor by the tax rate for butylene: (1.00 x $9.74 = $9.74).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification number*: *CAS number*: 25167-70-8

(2) *The Secretary is unable to confirm the following proposed classification numbers*:

(i) *HTSUS number*: 2901.29.1050

(ii) *Schedule B number*: 2901.29.6000

37. Determination to Add Polyisobutylene to the List

TPC Group, Inc., an exporter of polyisobutylene, submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add polyisobutylene to the List. According to the petition, the taxable chemical isobutylene (an isomer of butylene) constitutes 100 percent by weight of the materials used to produce polyisobutylene, based on the predominant method of production.

(a) *Determination*. Polyisobutylene is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing polyisobutylene is the cationic polymerization of isobutylene monomers. A Lewis acid catalyst and proton donating initiator are used to generate a stable cation on the tertiary carbon of isobutylene. This cation induces a chain growth polymerization that continues to transfer the cation to the end of the polymer chain making it available for further incorporation of isobutylene monomer. The size of the polymer is dictated by the

reaction temperature such that the lower the temperature the larger the polymer.

(2) *Stoichiometric material consumption equation*:

n C_4H_8 (isobutylene) → $(C_4H_8)_n$ (polyisobutylene)

(3) *Reasons for the determination*: The polyisobutylene petition was filed on February 14, 2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14521) on April 2, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemical isobutylene (an isomer of butylene) constitutes more than 20 percent by weight of the materials used in the production of polyisobutylene, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of polyisobutylene to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: October 1, 2024

(6) *Tax rate prescribed by the Secretary*: $9.74 per ton. The conversion factor for the butylene used in the production of polyisobutylene is 1.00. The tax rate is calculated by multiplying the conversion factor by the tax rate for butylene: (1.00 x $9.74 = $9.74).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 3902.20.10.00 and 3902.20.50.00

(ii) *Schedule B number*: 3902.20.1000 and 3902.20.5000

(iii) *CAS number*: 9003-27-4

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

38. Determination to Add Styrene-acrylonitrile ($(C_3H_3N)_a$-$(C_8H_8)_s$; a=0.26, s=0.74) to the List

Trinseo LLC, an importer and exporter of styrene-acrylonitrile ($(C_3H_3N)_a$-$(C_8H_8)_s$; a=0.26, s=0.74), also known as "SAN," submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add SAN to the List. According to the petition, the taxable chemicals propylene, ammonia, benzene, and ethylene constitute 88.27 percent by weight of the materials used to produce SAN, based on the predominant method of production.

(a) *Determination*. Styrene-acrylonitrile ($(C_3H_3N)_a$-$(C_8H_8)_s$; a=0.26, s=0.74) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing SAN is through free radical, random copolymerization of 100 percent of the acrylonitrile and styrene monomers. Low levels of unreacted monomers remain bound within the polymer matrix as "residual" components of the product as sold or imported.

(2) *Stoichiometric material consumption equation*:

a C_3H_6 (propylene) + a NH_3 (ammonia) + 3/2a O_2 + s C_6H_6 (benzene) + s C_2H_4 (ethylene) → $(C_3H_3N)_a$-$(C_8H_8)_s$ (SAN) + 3a H_2O + s H_2 (hydrogen); a=0.26, s=0.74

(3) *Reasons for the determination*: The SAN petition was filed on February 14,

2025. The notice of filing summarizing the petition and requesting comments was published in the *Federal Register* (90 FR 14693) on April 3, 2025, and a correction was published in the *Federal Register* (90 FR 19246) on May 6, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals propylene, ammonia, benzene, and ethylene constitute more than 20 percent by weight of the materials used in the production of SAN, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of SAN to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: April 1, 2024

(6) *Tax rate prescribed by the Secretary*: $9.91 per ton. The conversion factors for the taxable chemicals used in the production of SAN are 0.12 for propylene, 0.05 for ammonia, 0.64 for benzene, and 0.23 for ethylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate for that taxable chemical: ((0.12 x $9.74) + (0.05 x $5.28) + (0.64 x $9.74) + (0.23 x $9.74) = $9.91).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification numbers*:

(i) *HTSUS number*: 3903.20.0000 (Pellets)

(ii) *Schedule B number*: 3903.20.0000 (Pellets)

(iii) *CAS number*: 9003-54-7

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

39. Determination to Add Acrylonitrile Butadiene Styrene ($(C_3H_3N)_a$-$(C_4H_6)_b$-$(C_8H_8)_s$; a=0.16, b=0.10, s=0.74) to the List

Trinseo LLC, an importer and exporter of acrylonitrile butadiene styrene ($(C_3H_3N)_a$-$(C_4H_6)_b$-$(C_8H_8)_s$; a=0.16, b=0.10, s=0.74), also known as "ABS," submitted a petition in accordance with Rev. Proc. 2022-26 requesting to add ABS to the List. According to the petition, the taxable chemicals propylene, ammonia, butadiene, benzene, and ethylene constitute 92.40 percent by weight of the materials used to produce ABS, based on the predominant method of production.

(a) *Determination*. Acrylonitrile butadiene styrene ($(C_3H_3N)_a$-$(C_4H_6)_b$-$(C_8H_8)_s$; a=0.16, b=0.10, s=0.74) is added to the list of taxable substances under section 4672(a). Other pertinent information is as follows:

(1) *Predominant method of production*: The predominant method of producing ABS is through free radical, random copolymerization of 100 percent of the acrylonitrile, butadiene, and styrene monomers. Low levels of unreacted monomers remain bound within the polymer matrix as "residual" components of the product as sold or imported.

(2) *Stoichiometric material consumption equation*:

a C_3H_6 (propylene) + a NH_3 (ammonia) + 3/2a O_2 + b C_4H_6 (butadiene) + s C_6H_6 (benzene) + s C_2H_4 (ethylene) → $(C_3H_3N)_a$-$(C_4H_6)_b$-$(C_8H_8)_s$ (ABS) + 3a H_2O (water) + s H_2 (hydrogen); a=0.16, b=0.10, s=0.74

(3) *Reasons for the determination*: The ABS petition was filed on February 14, 2025. The notice of filing summarizing the petition and requesting comments was

published in the *Federal Register* (90 FR 14687) on April 3, 2025, and a correction was published in the *Federal Register* (90 FR 19245) on May 6, 2025. The Treasury Department and the IRS received no written comments in response to the notice of filing. A public hearing was neither requested nor held.

The Secretary followed the process in section 4672(a)(2)(B) in making this determination. A review of the stoichiometric material consumption equation and other information in the petition shows that the taxable chemicals propylene, ammonia, butadiene, benzene, and ethylene constitute more than 20 percent by weight of the materials used in the production of ABS, based on the predominant method of production. Therefore, the test in section 4672(a)(2)(B) is satisfied.

(4) *Date of determination:* **[INSERT DATE OF FILING WITH THE FEDERAL REGISTER]**.

(5) *Effective dates for addition of ABS to the List*:

(i) *Effective date for purposes of the section 4671 tax (see section 11.01 of Rev. Proc. 2022-26)*: January 1, 2026

(ii) *Effective date for purposes of refund claims under section 4662(e) (see sections 11.02 and 11.03 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20)*: April 1, 2024

(6) *Tax rate prescribed by the Secretary*: $9.90 per ton. The conversion factors for the taxable chemicals used in the production of ABS are 0.07 for propylene, 0.03 for ammonia, 0.06 for butadiene, 0.64 for benzene, and 0.23 for ethylene. The tax rate is calculated by adding the products of the conversion factor for each taxable chemical and the tax rate that chemical: ((0.07 x $9.74) + (0.03 x $5.28) + (0.06 x $9.74) + (0.64 x $9.74) + (0.23 x $9.74) = $9.90).

(b) *Classification numbers*.

(1) *The Secretary has no basis to object to the following proposed classification*

numbers:

(i) *HTSUS number*: 3903.30.0000 (Pellets)

(ii) *Schedule B number*: 3903.30.0000 (Pellets)

(iii) *CAS number*: 9003-56-9

(2) *The Secretary is unable to confirm the following proposed classification numbers*: Not applicable.

Krishna P. Vallabhaneni,
Tax Legislative Counsel.

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