[4830-01-p]

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Superfund Tax on Chemical Substances; Request to Modify List of Taxable Substances; Notice of Filing for Linear Nonyl UnDecyl Phthalate

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice of filing and request for comments.

SUMMARY: This notice of filing announces that a petition has been filed requesting that linear nonyl undecyl phthalate be added to the list of taxable substances. This notice of filing also requests comments on the petition. This notice of filing is not a determination that the list of taxable substances is modified.

DATES: Written comments and requests for a public hearing must be received on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Commenters are encouraged to submit public comments or requests for a public hearing relating to this petition electronically via the Federal eRulemaking Portal at https://www.regulations.gov (indicate public docket number IRS-2025-0045 or linear nonyl undecyl phthalate) by following the online instructions for submitting comments. Comments cannot be edited or withdrawn once submitted to the Federal eRulemaking Portal. Alternatively, comments and requests for a public hearing may be mailed to: Internal Revenue Service, Attn: CC:PA:01:PR (Notice of Filing for Linear Nonyl UnDecyl Phthalate), Room 5203, P.O. Box 7604, Ben Franklin Station, Washington D.C. 20044. All comments received are part of the public record and subject to public disclosure. All comments received will be posted without change to https://www.regulations.gov, including any personal information provided. You should submit only information that you wish to make publicly available. If a public hearing is

scheduled, notice of the time and place for the hearing will be published in the *Federal Register*.

FOR FURTHER INFORMATION CONTACT: Camille Edwards Bennehoff at (202) 317-6855 (not a toll-free number).

SUPPLEMENTARY INFORMATION:

Request to Add Substance to the List:

(a) *Overview*. A petition was filed pursuant to Rev. Proc. 2022-26 (2022-29 I.R.B. 90), *as modified by* Rev. Proc. 2023-20 (2023-15 I.R.B. 636), requesting that linear nonyl undecyl phthalate be added to the list of taxable substances under section 4672(a) of the Internal Revenue Code (List). The petition requesting the addition of linear nonyl undecyl phthalate to the List is based on weight and contains the information detailed in paragraph (b) of this document. The information is provided for public notice and comment pursuant to section 9 of Rev. Proc. 2022-26. The publication of petition information in this notice of filing is not a determination and does not constitute Treasury Department or IRS confirmation of the accuracy of the information published.

(b) *Petition Content.*

(1) *Substance name:* Linear nonyl undecyl phthalate

(2) *Petitioner:* Exxon Mobil Corporation, an exporter of linear nonyl undecyl phthalate

(3) *Proposed classification numbers:*

(i) *HTSUS number:* 3812.20.10.00

(ii) *Schedule B number*: 3812.20.0000

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

(4) *Petition filing dates:*

(i) *Petition filing date for purposes of making a determination:* April 8, 2025

(ii) *Petition filing date for purposes of section 11.02 of Rev. Proc. 2022-26, as modified by section 3 of Rev. Proc. 2023-20:* July 1, 2022

(5) *Description from petition:* Linear nonyl undecyl phthalate is a plasticizer used when greater low-temperature flexibility or a specific end-use application requires unique processing. It is suitable for flexible PVC products, and it exhibits strong low-temperature performance and improved resistance to UV light.

Linear nonyl undecyl phthalate is made from ethylene and orthoxylene, an isomer of the taxable chemical xylene. Taxable chemicals constitute 69.14 percent by weight of the materials used to produce this substance.

(6) *Process identified in petition as predominant method of production of substance:* The predominant method of producing linear nonyl undecyl phthalate is via the esterification process. 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 1 mole of a linear C9 alcohol and 1 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 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 C5-C20 range, obtained from the refinery pipestills and other chemicals units.

(7) *Stoichiometric material consumption equation, based on process identified as predominant method of production:*

> 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]

(8) *Tax rate calculated by Petitioner, based on Petitioner's conversion factors for*

taxable chemicals used in production of substance:

(i) *Tax rate:* $7.89 per ton

(ii) *Conversion factors:* 0.57 for ethylene and 0.24 for xylene

(9) *Public docket number:* IRS-2025-0045

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[FR Doc. 2025-08425 Filed: 5/13/2025 8:45 am; Publication Date: 5/14/2025]