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DEPARTMENT OF JUSTICE

Drug Enforcement Administration

21 CFR Part 1310

[Docket No. DEA-1427]

Amendment to 3,4-MDP-2-P methyl glycidic acid, a List I Chemical

AGENCY: Drug Enforcement Administration, Department of Justice.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Drug Enforcement Administration is proposing to modify the listing of the list I chemical 3,4-MDP-2-P methyl glycidic acid (also known as PMK glycidic acid) to include esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the Controlled Substances Act (CSA), as list I chemicals under the CSA. The current listing of 3,4-MDP-2-P methyl glycidic acid includes its salts, optical and geometric isomers, and salts of isomers. DEA proposes the new listing to read as follows: 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its esters, not listed elsewhere in the CSA, its optical and geometric isomers, its salts, salts of its optical and geometric isomers, salts of its esters, not listed elsewhere in the CSA, and any combination thereof, whenever the existence of such is possible.

DATES: Comments must be submitted electronically or postmarked on or before [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. Commenters should be aware that the electronic Federal Docket Management System will not accept any comments after 11:59 p.m. Eastern Time on the last day of the comment period.

ADDRESSES: To ensure proper handling of comments, please reference ‘‘Docket No. DEA–1427’’ on all electronic and written correspondence, including any attachments.

- *Electronic comments*: The Drug Enforcement Administration encourages that all comments be submitted electronically through the Federal eRulemaking Portal which provides the ability to type short comments directly into the comment field on the web page or attach a file for lengthier comments. Please go to https://www.regulations.gov and follow the online instructions at that site for submitting comments. Upon completion of your submission, you will receive a Comment Tracking Number for your comment. Please be aware that submitted comments are not instantaneously available for public view on Regulations.gov. If you have received a Comment Tracking Number, your comment has been successfully submitted and there is no need to resubmit the same comment.

- *Paper comments*: Paper comments that duplicate electronic submissions are not necessary. Should you wish to mail a paper comment, in lieu of an electronic comment, it should be sent via regular or express mail to: Drug Enforcement Administration, Attn: DEA Federal Register Representative/DPW, 8701 Morrissette Drive, Springfield, Virginia 22152.

- *Paperwork Reduction Act Comments*: All comments concerning collections of information under the Paperwork Reduction Act must be submitted to the Office of Information and Regulatory Affairs, OMB, Attention: Desk Officer for DOJ, Washington, DC 20503. Please state that your comment refers to Docket No. DEA-1427.

FOR FURTHER INFORMATION CONTACT: Terrence L. Boos, Drug and Chemical Evaluation Section, Diversion Control Division, Drug Enforcement Administration; Telephone: (571) 362– 3249.

As required by 5 U.S.C. 553(b)(4), a summary of this proposed rule may be found in the docket for this rulemaking at *www.regulations.gov*.

SUPPLEMENTARY INFORMATION:

Posting of Public Comments

All comments received in response to this docket are considered part of the public record. The Drug Enforcement Administration (DEA) will make comments available for public inspection online at *https://www.regulations.gov*, unless reasonable cause is given. Such information includes personal identifying information (such as your name, address, etc.) voluntarily submitted by the commenter.

Commenters submitting comments which include personal identifying information (PII), confidential, or proprietary business information that the commenter does not want made publicly available should submit two copies of the comment. One copy must be marked "CONTAINS CONFIDENTIAL INFORMATION" and should clearly identify all PII or business information the commenter does not want to be made publicly available, including any supplemental materials. DEA will review this copy, including the claimed PII and confidential business information, in its consideration of comments. The second copy should be marked "TO BE PUBLICLY POSTED" and must have all claimed PII and business information already redacted. DEA will post only the redacted comment on *https://www.regulations.gov* for public inspection. DEA generally will not redact additional information contained in the comment marked "TO BE PUBLICLY POSTED." The Freedom of Information Act applies to all comments received.

For easy reference, an electronic copy of this document and a plain language summary of this notice of proposed rulemaking are available at *https://www.regulations.gov.*

Legal Authority

The Controlled Substances Act (CSA) authorizes the Attorney General to specify, by regulation, chemicals as list I chemicals.[1] The Attorney General has

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[1] 21 U.S.C. 802(34).

delegated her authority to designate list I chemicals to the Administrator of DEA (Administrator).[2] A "list I chemical" is defined as "a chemical that is used in manufacturing a controlled substance in violation of [the CSA] and is important to the manufacture of the controlled substances."[3] The current list of all listed chemicals is published at 21 CFR 1310.02. DEA regulations set forth the process by which DEA may add a chemical as a listed chemical. As set forth in 21 CFR 1310.02(c), the agency may do so by publishing a final rule in the *Federal Register* following a published notice of proposed rulemaking with at least 30 days for public comments.

In addition, the United States is a party to the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988 Convention), Dec. 20, 1988, 1582 U.N.T.S. 95. Under Article 12 of the 1988 Convention, when the United States receives notification that a chemical has been added to Table I or Table II of the 1988 Convention, the United States is required to take measures it deems appropriate to monitor the manufacture and distribution of that chemical within the United States and to prevent its diversion, including measures related to international trade. By letter dated June 6, 2024, in accordance with Article 12, paragraph 6 of the 1988 Convention, the Secretary-General of the United Nations informed the United States Government that seven esters of the chemical 3,4-MDP-2-P methyl glycidic acid, including all stereoisomers, were added to Table I of the 1988 Convention as a footnote to 3,4-MDP-2P methyl glycidic acid.

Background

As the problem of illicit drug production continues to grow, the need for controls on the chemicals used to make illicit drugs, also known as precursor chemicals, continues

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[2] 28 CFR 0.100(b).
[3] 21 U.S.C. 802(34).

to gain global attention. International controls on precursors were first established under Article 12 of the 1988 Convention, which established two categories of controlled illicit drug precursor substances: Table I and Table II.[4] International efforts to prevent the illicit production of amphetamine-type stimulants (including amphetamine and methamphetamine), 3,4-methylenedioxymethamphetamine (MDMA) and "ecstasy"-like substances, and international control of precursors have since made significant progress to help curtail the synthesis of these substances.

Two international entities have played a crucial role in this effort: the Commission on Narcotic Drugs (CND) and the International Narcotics Control Board (INCB). Previously, the CND voted to include methamphetamine, amphetamine, and MDMA precursor chemicals, including *alpha*-phenylacetoacetonitrile (APAAN),[5] 3,4-MDP-2-P methyl glycidate, 3,4-MDP-2-P methyl glycidic acid, *alpha*-phenylacetoacetamide (APAA),[6] and methyl *alpha*-phenylacetoacetate (MAPA) to Table I of the 1988 Convention,[7] and they were added under the 1988 Convention. DEA subsequently controlled these chemicals as list I chemicals under the CSA.[8]

In response to domestic and international controls on MDMA precursors, clandestine laboratory operators have continued to explore alternate methods of making these illicit drugs, including developing techniques to manufacture their own precursors and diverting other chemicals to produce these precursors. Clandestine laboratory

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[4] Table I and Table II are annexed to the Convention.
[5] APAAN was added to Table I of the 1988 Convention at the 57th Session of the CND.
[6] APAA, 3,4-MDP2P glycidic acid, and 3,4-MDP2P methyl glydicate were added to Table I of the 1988 Convention at the 62nd Session of the CND.
[7] MAPA was added to Table I of the 1988 Convention at the 63rd Session of the CND.
[8] *Designation of Alpha-Phenylacetoacetonitrile (APAAN), a Precursor Chemical Used in the Illicit Manufacture of Phenylacetone, Methamphetamine, and Amphetamine, as a List I Chemical*, 82 FR 32457-32461 (July 14, 2017); *Designation of Methyl alpha-phenylacetoacetate, a Precursor Chemical Used in the Illicit Manufacture of Phenylacetone, Methamphetamine, and Amphetamine, as a List I Chemical*, 86 FR 64362-64366 (Nov. 18, 2021); *Designation of 3,4-MDP-2-P methyl glycidate (PMK glycidate), 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid), and alpha-phenylacetoacetamide (APAA) as List I Chemicals*, 86 FR 24703-24708 (May 10, 2021); *Designation of 3,4-MDP-2-P Methyl Glycidate (PMK Glycidate), 3,4-MDP-2-P Methyl Glycidic Acid (PMK Glycidic Acid), and Alpha-Phenylacetoacetamide (APAA) as List I Chemicals*, 86 FR 30169 (June 7, 2021).

operators currently use 3,4-MDP-2-P methyl glycidic acid and its methyl ester to manufacture 3,4-MDP-2-P, which they then convert to MDMA and related substances. Thus, DEA has previously determined that 3,4-MDP-2-P methyl glycidic acid and its methyl ester are used in the manufacture of the controlled substance MDMA (a schedule I substances under the CSA) and other "ecstasy"-like substances and are important to the manufacture of these substances.[9] On this basis, and on the recommendation for control from the INCB, DEA previously specified that 3,4-MDP-2-P methyl glycidic acid and its methyl ester are list I chemicals.[10]

DEA has now found that other esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, may also be used in the illicit manufacture of schedule I controlled substance MDMA and other "ecstasy"-like substances. Additionally, the INCB reported that additional esters of 3,4-MDP-2-P methyl glycidic acid are all suitable for the illicit manufacture of 3,4-MDP-2-P, a precursor already listed in Table I of the 1988 Convention.[11]

By letter dated June 6, 2024, in accordance with Article 12, paragraph 6 of the 1988 Convention, the Secretary-General of the United Nations informed the United States Government that seven esters of the chemical 3,4-MDP-2-P methyl glycidic acid, including all stereoisomers, were added to Table I of the 1988 Convention as a footnote to 3,4-MDP-2P methyl glycidic acid. This letter was prompted by a March 19, 2024, decision at the 67th Session of the CND to add the ethyl, propyl, isopropyl, butyl,

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[9] Designation of 3,4-MDP-2-P methyl glycidate (PMK glycidate), 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid), and alpha-phenylacetoacetamide (APAA) as List I Chemicals. Final Rule, 86 FR 24703-24708 (May 10, 2021); Designation of 3,4-MDP-2-P Methyl Glycidate (PMK Glycidate), 3,4-MDP-2-P Methyl Glycidic Acid (PMK Glycidic Acid), and Alpha-Phenylacetoacetamide (APAA) as List I Chemicals; Correction. Final Rule; correction, 86 FR 30169 (June 7, 2021).
[10] *Id*.
[11] Statement by Professor Jallal Toufiq, President, International Narcotics Control Board, 67th Session of the Commission on Narcotic Drugs, March 19, 2024.

isobutyl, sec-butyl, and tert-butyl esters of 3,4-MDP-2-P methyl glycidic acid to Table I. Separately, following the 68th Session of the CND held on March 12, 2025, a letter dated June, 9, 2025, informed the United States Government that 3,4-MDP-2-P methyl glycidate (PMK glycidate) will be moved from the body of Table I of the 1988 Convention to footnote 1 of that table, as the "methyl ester." With this revision, the methyl ester will be listed as an ester of PMK glycidic acid, along with the other esters that were controlled from the 67th Session of the CND; its control status remains the same. As discussed above, the United States is a party to the 1988 Convention and has certain obligations pursuant to Article 12. By amending the listing for 3,4-MDP-2-P methyl glycidic acid to include additional esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, as list I chemicals, the United States will fulfill its obligations under the 1988 Convention.

Further, these esters of 3,4-MDP-2-P methyl glycidic acid meet the definition of list I chemicals because they are important to the manufacture of controlled substances.

Accordingly, if finalized, this action would add additional esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, including the ethyl, propyl, isopropyl, butyl, isobutyl, sec-butyl, and tert-butyl esters of 3,4-MDP-2-P methyl glycidic acid to the prior listing of 3,4-MDP-2-P methyl glycidic acid, and thereby subject handlers of these esters of 3,4-MDP-2-P methyl glycidic acid to the chemical regulatory provisions of the CSA and its implementing regulations.

3,4-MDP-2-P Methyl Glycidic Acid and Its Esters

3,4-MDP-2-P methyl glycidic acid is used in the manufacture of the list I precursor chemical 3,4-MDP-2-P, the schedule I substance MDMA, and other "ecstasy"-like substances. 3,4-MDP-2-P methyl glycidic acid is a close chemical relative of controlled list I precursor 3,4 methylenedioxyphenyl-2-propanone (3,4-MDP-2-P) and

has been made specifically to circumvent existing precursor chemical controls (e.g. list I chemicals). DEA has not identified any known legitimate uses for this chemical, other than possible research purposes. Internationally, 3,4-MDP-2-P is also listed in Table I of the 1988 Convention.

3,4-MDP-2-P methyl glycidic acid is also known as PMK glycidic acid. Since 2011, there have been 29 reports of the sodium and potassium salts of 3,4-MDP-2-P methyl glycidic acid, including over 16 metric tons of 3,4-MDP-2-P methyl glycidic acid salts reported in the Precursors Incident Communication System (PICS).[12] China was reported as the alleged origin country for 17 of the incidents (e.g., seizures, stopped shipments, diversions, etc.) out of the 20 reports where origin country was reported. The majority of the incidents were reported in the Netherlands.

The methyl ester of 3,4-MDP-2-P methyl glycidic acid has been reported in PICS for several years. Since 2013, there have been 79 reports through PICS of the methyl ester of 3,4-MDP-2-P methyl glycidic acid totaling over 28 metric tons.[13] China was reported as the alleged origin country for 37 of the incidents out of the 53 reports where origin country was reported. The majority of the incidents were reported in the Netherlands.

In recent years, incidents involving the ethyl ester of 3,4-MDP-2-P methyl glycidic acid have been reported in PICS. Since 2021, there have been 154 reports through PICS of the ethyl ester of 3,4-MDP-2-P methyl glycidic acid totaling more than 104 metric tons of the ethyl ester of 3,4MP-2-P methyl glycidic acid.[14] China was reported as the alleged origin country for 77 of the incidents out of the 86 reports where origin country was reported. The majority of the incidents were reported in the Netherlands.

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[12] PICS is a worldwide, real-time, on-line tool for communication and information sharing between national authorities on precursor incidents to include seizures, stopped shipments, diversion and diversion attempts, illicit laboratories and associated equipment. Queried March 24, 2026, https://pics.incb.org/.
[13] PICS system queried March 24, 2026, https://pics.incb.org/.
[14] PICS system queried March 24, 2026, https://pics.incb.org/.

The INCB issued a statement with additional information on their recommendation for the international control of ethyl, propyl, isopropyl, butyl, isobutyl, sec-butyl, and tert-butyl esters of 3,4-MDP-2-P methyl glycidic.[15] It is noted that these esters are closely related to 3,4-MDP-2-P methyl glycidic acid and its methyl ester, and they can be used interchangeably in the illicit manufacture of 3,4-MDP-2-P. Further, incidents of illicit manufacturing and trafficking involving the ethyl ester of 3,4-MDP-2-P methyl glycidic acid have been reported since 2021, with a major increase in frequency and amounts since the end of 2022.[16] These seven esters of 3,4-MDP-2-P methyl glycidic acid do not have any legitimate use and have not been widely traded through legitimate channels.

DEA has not identified any known legitimate uses for esters of 3,4-MDP-2-P methyl glycidic acid, other than in small amounts for research, development, and laboratory analytical purposes. Due to the lack of industrial uses of esters of 3,4-MDP-2-P methyl glycidic acid, the chemicals have not been widely available from legitimate chemical suppliers. Since 2013, however, there have been numerous international seizures of esters of 3,4-MDP-2-P methyl glycidic acid, primarily in Europe, which suggest there is a ready supply of esters of 3,4-MDP-2-P methyl glycidic acid from international chemical manufacturers. The only use for a large quantity of esters of 3,4-MDP-2-P methyl glycidic acid of which DEA is aware is as a primary precursor for

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[15] Statement by Professor Jallal Toufiq, President, International Narcotics Control Board, 67th Session of the Commission on Narcotic Drugs, March 19, 2024, at 2b.
[16] Statement by Professor Jallal Toufiq, President, International Narcotics Control Board, 67th Session of the Commission on Narcotic Drugs, March 19, 2024.

conversion to 3,4-MDP-2-P, and subsequent conversion to MDMA and other "ecstasy"-like substances.

DEA has determined that the ethyl ester of 3,4-MDP-2-P methyl glycidic acid is now readily available from commercial chemical suppliers and has identified potential suppliers in the United States, China, France, the United Kingdom, and Hong Kong.

DEA is concerned about the ease with which esters of 3,4-MDP-2-P methyl glycidic acid serve as precursor chemicals for illicit controlled substance production and with the international trafficking in these chemicals. The international community shares this concern. The INCB found that, in addition to the methyl ester of 3,4-MDP-2-P methyl glycidic acid, seven additional esters are "highly suitable for the illicit manufacture of 3,4-MDP-2-P."[17] Based in part on the findings of the INCB, and as noted above, the CND has updated the scope of control of 3,4-MDP-2-P methyl glycidic acid to include seven additional esters of 3,4-MDP-2-P methyl glycidic acid in Table I of the 1988 Convention. Therefore, DEA is proposing to modify the listing for control of 3,4-MDP-2-P methyl glycidic acid to include its esters, not listed elsewhere in the CSA, as list I chemicals.

Proposed Regulation of 3,4-MDP-2-P methyl glycidic acid and esters, not already listed in the CSA, as List I Chemicals

The CSA, specifically 21 U.S.C. 802(34), and its implementing regulations at 21 CFR 1310.02(c), provide the Attorney General with the authority to specify, by regulation, additional precursor or essential chemicals as listed chemicals if they are used in the manufacture of controlled substances in violation of the CSA. Recent law enforcement encounters indicate the ethyl ester of 3,4-MDP-2-P methyl glycidic acid is being used in the illicit manufacture of schedule I substances MDMA and "ecstasy"-like

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[17] Statement by Professor Jallal Toufiq, President, International Narcotics Control Board, 67th Session of the Commission on Narcotic Drugs, March 19, 2024.

substances, and the propyl, isopropyl, butyl, isobutyl, sec-butyl, and tert-butyl esters are direct substitutes for the ethyl ester and can be readily converted to the list I chemical 3,4-MDP-2-P, using the same processes.[18] This proposed rule would modify the current regulations for 3,4-MDP-2-P methyl glycidic acid including its salts, optical and geometric isomers, and salts of isomers to include esters, not listed elsewhere in the CSA. DEA finds that esters of 3,4-MDP-2-P methyl glycidic acid, not already listed in the CSA, are used in, and are important to, the illicit manufacture of controlled substances such as MDMA and "ecstasy"-like substances. These substances can be used interchangeably with each other in the illicit manufacture of MDMA and "ecstasy"-like substances. This proposed rule would not affect current handlers of 3,4-MDP-2-P methyl glycidic acid, including its salts, optical and geometric isomers, and salts of isomers, as they would already be registered to handle 3,4-MDP-2-P methyl glycidic acid. Additionally, this rulemaking does not establish a threshold for domestic and international transactions of esters of 3,4-MDP-2-P glycidic acid, not listed elsewhere in the CSA. As such, all transactions of esters of 3,4-MDP-2-P glycidic acid, not listed elsewhere in the CSA, regardless of size, will be regulated in accordance with 21 CFR 1310.04(g).

Chemical Mixtures of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA

This proposed rulemaking, if finalized, would modify the current regulations for 3,4-MDP-2-P methyl glycidic acid including its salts, optical and geometric isomers, and salts of isomers to include esters, not listed elsewhere in the CSA. The regulation would specify that chemical mixtures containing esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, would not be exempt from regulatory requirements at

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[18] Statement by Professor Jallal Toufiq, President, International Narcotics Control Board, 67th Session of the Commission on Narcotic Drugs, March 19, 2024.

any concentration, unless a manufacturer submits to DEA an application for exemption of such chemical mixture, DEA accepts the application for filing, and DEA exempts the chemical mixture in accordance with 21 CFR 1310.13. Because there are no legitimate industrial uses for the esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, regulation of chemical mixtures containing any amount of these substances is necessary to prevent the illicit extraction, isolation, and use of these esters. As such, this rule also proposes the modification of the "Table of Concentration Limits" in 21 CFR 1310.12(c) to reflect the fact that chemical mixtures containing any amount of the esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, are subject to CSA chemical control provisions.

Application Process for Exemption of Chemical Mixtures

DEA has implemented an application process to exempt certain chemical mixtures from the requirements of the CSA and its implementing regulations.[19] Manufacturers may apply for an automatic exemption for those mixtures that do not meet the criteria set forth in 21 CFR 1310.12(d). Pursuant to 21 CFR 1310.13(a), DEA may grant an exemption of a chemical mixture, by publishing a final rule in the *Federal Register*, if DEA determines that the mixture is formulated in such a way that it cannot be easily used in the illicit production of a controlled substance, and that the listed chemical or chemicals cannot be readily recovered.[20]

Requirements for Handling List I Chemicals

On May 10, 2021, DEA designated 3,4-MDP-2-P methyl glycidic acid, including its salts, optical and geometric isomers, and salts of isomers, as a list I chemical under the CSA. This proposed rule would expand the definitions of 3,4-MDP-2-P methyl glycidic

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[19] 21 CFR 1310.13 specifies that this chemical mixture is a chemical mixture consisting of two or more chemical components, at least one of which is a list I or list II chemical.
[20] 21 U.S.C. 802(39)(A)(vi).

acid to include esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA. Esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, would become subject to the regulatory provisions of the CSA upon publication of a final rule. Chemicals that meet the current definition of 3,4-MDP-2-P methyl glycidic acid[21] have been, and continue to be, subject to the regulatory provisions of the CSA since May 10, 2021.

If finalized as proposed, handlers of the esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, will be subject to all of the regulatory controls and administrative, civil, and criminal sanctions applicable to the manufacture, distribution, importing, and exporting of a list I chemical. Upon publication of a final rule, persons potentially handling the esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, including regulated chemical mixtures containing the esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, would be required to comply with the following list I chemical regulations, including the following:

1. *Registration*. Any person who handles (manufactures, distributes, imports, or exports), or proposes to engage in such handling of, esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, or a chemical mixture containing esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, must obtain a registration pursuant to 21 U.S.C. 822, 823, 957, and 958. Regulations describing registration for list I chemical handlers are set forth in 21 CFR part 1309. DEA regulations require separate registrations for manufacturing, distributing, importing, and exporting of list I chemicals.[22] Further, a separate registration is required for each

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[21] *Designation of 3,4-MDP-2-P methyl glycidate (PMK glycidate), 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid), and alpha-phenylacetoacetamide (APAA) as List I Chemicals*, 86 FR 24703-24708 (May 10, 2021).
[22] 21 CFR 1309.21.

principal place of business at one general physical location where list I chemicals are manufactured, distributed, imported, or exported by a person.[23]

DEA notes that under the CSA, "warehousemen" are not required to register and may lawfully possess list I chemicals, if the possession of those chemicals is in the usual course of business or employment.[24] Under DEA implementing regulations, the warehouse in question must receive the list I chemical from a DEA registrant and shall only distribute the list I chemical back to the DEA registrant and registered location from which it was received.[25] A warehouse that distributes list I chemicals to persons other than the registrant and registered location from which they were obtained is conducting distribution activities and is required to register as such.

Upon publication of a final rule, any person manufacturing, distributing, importing, or exporting esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, or a chemical mixture containing esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, would become subject to the registration requirement under the CSA. DEA recognizes, however, that it is not possible for persons who are subject to the registration requirements to immediately complete and submit an application for registration and for DEA to immediately issue registrations for those activities. Therefore, to allow any continued legitimate commerce in esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, DEA is proposing to establish in 21 CFR 1310.09 a temporary exemption from the registration requirement for persons desiring to engage in activities with esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, provided that DEA receives a properly completed application for registration on or before 30 days after publication of a final rule

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[23] 21 CFR 1309.23(a). See also 21 U.S.C. 822(e)(1) with separate registration requirements pertaining to manufacturing or distributing a list I chemical.
[24] 21 U.S.C. 822(c)(2) and 957(b)(1)(B).
[25] See 21 CFR 1309.23(b)(1).

implementing regulations regarding esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA. The temporary exemption for such persons would remain in effect until DEA takes final action on their application for registration or application for exemption of a chemical mixture.

The temporary exemption would apply solely to the registration requirement; all other chemical control requirements, including recordkeeping and reporting, would become effective on the effective date of the final rule. This is necessary because a delay in regulating these transactions could result in increased diversion of chemicals desirable to drug traffickers.

Additionally, the temporary exemption for registration does not suspend applicable Federal criminal laws relating to esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, nor does it supersede State or local laws or regulations. All handlers of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, must comply with applicable State and local requirements in addition to the CSA regulatory controls.

2. *Records and Reports*. Every DEA registrant would be required to maintain records and submit reports to DEA with respect to esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, pursuant to 21 U.S.C. 830, and in accordance with 21 CFR 1310.04 and 1310.05. Pursuant to 21 CFR 1310.04, a record must be made and maintained for two years after the date of a transaction involving a listed chemical, provided the transaction is a regulated transaction.

Each regulated bulk manufacturer of a listed chemical would be required to submit manufacturing, inventory, and use data on an annual basis.[26] Existing standard

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[26] 21 CFR 1310.05(d).

industry reports containing the required information would be acceptable, provided the information is separate or readily retrievable from the report.

The CSA and its implementing regulations require that each regulated person must report to DEA any regulated transaction involving an extraordinary quantity of a listed chemical, an uncommon method of payment or delivery, or any other circumstance that the regulated person believes may indicate that the listed chemical will be used in violation of subchapter I of the CSA. In addition, regulated persons must report any proposed regulated transaction with a person whose description or other identifying characteristics DEA has previously furnished to the regulated person, any unusual or excessive loss or disappearance of a listed chemical under the control of the regulated person, and any in-transit loss in which the regulated person is the supplier.[27]

3. *Importation and Exportation*. All importation and exportation of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, would need to be done in compliance with 21 U.S.C. 957, 958, and 971, and in accordance with 21 CFR part 1313.

4. *Security*. All applicants and registrants would be required to provide effective controls against theft and diversion of list I chemicals in accordance with 21 CFR 1309.71-1309.73.

5. *Administrative Inspection*. Places, including factories, warehouses, or other establishments and conveyances, where registrants or other regulated persons may lawfully hold, manufacture, distribute, or otherwise dispose of a list I chemical or where records relating to those activities are maintained, are controlled premises as defined in 21 U.S.C. 880(a) and 21 CFR 1316.02(c). The CSA allows for administrative inspections of these controlled premises as provided in 21 CFR part 1316, subpart A.[28]

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[27] 21 U.S.C. 830(b); 21 CFR 1310.05(a) and (b).
[28] 21 U.S.C. 880.

6. *Liability*. Any activity involving esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, not authorized by, or in violation of, the CSA would be unlawful, and would subject the person to administrative, civil, and/or criminal action.

REGULATORY ANALYSES

Executive Orders 12866, 13563, 14192, and 14294 (Regulatory Review)

DEA has determined that this rulemaking is not a "significant regulatory action" under section 3(f) of Executive Order (E.O.) 12866, Regulatory Planning and Review. This proposed rule has been drafted and reviewed in accordance with E.O. 12866, "Regulatory Planning and Review," section 1(b), Principles of Regulation and E.O. 13563, "Improving Regulation and Regulatory Review," section 1(b), General Principles of Regulation." DEA scheduling actions are not subject to either E.O. 14192, Unleashing Prosperity Through Deregulation, or E.O. 14294, Fighting Overcriminalization in Federal Regulations.

DEA is proposing the control of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, as list I chemicals under the CSA. DEA finds that esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA are used in the illicit manufacture of the controlled substances MDMA and "ecstasy"-like substances. Further, the esters of 3,4-MDP-2-P methyl glycidic acid may be used as replacements for each other in synthetic pathways to make MDMA and "ecstasy"-like substances. If finalized as proposed, esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, would be subject to all of the regulatory controls and administrative, civil, and criminal sanctions applicable to the manufacture, distribution, importing, and exporting of list I chemicals. This proposed rulemaking does not establish a threshold for domestic and international transactions of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA. As such, all transactions of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, regardless of size, shall be regulated. In

addition, chemical mixtures containing esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA are not exempt from regulatory requirements at any concentration. Therefore, all transactions of chemical mixtures containing any quantity of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA shall be regulated pursuant to the CSA. If finalized as proposed, esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA will be subject to all of the regulatory control and administrative, civil, and criminal sanctions applicable to the manufacture, distribution, importing, and exporting of list I chemicals.

Esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, are used in, and are important to, the illicit manufacture of the list I chemical 3,4-MDP-2-P, and schedule I controlled substance MDMA and other "ecstasy'-like substances.

DEA has searched information in the public domain for any legitimate uses of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA. Other than the small amounts potentially used for research, development, and laboratory analytical purposes, DEA has not documented any industrial use for esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA.

DEA cannot rule out the possibility that minimal quantities of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA are used for the manufacturing of legitimate 3,4-MDP-2-P. However, if there are any quantities of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, used for the manufacturing of legitimate 3,4-MDP-2-P, the quantities are believed to be minimal. DEA welcomes any public comment on these quantities and their economic significance.

DEA evaluated the costs and benefits of this proposed action.

Costs

DEA believes the market for esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, for the legitimate manufacturing of pharmaceutical MDMA

and other “ecstasy”-like substances is minimal. As stated above, the only use for esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, of which DEA is aware is as a chemical intermediate for the manufacture of 3,4-MDP-2-P, MDMA and other “ecstasy”-like substances. Any manufacturer, distributor, importer, or exporter of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, for the production of legitimate 3,4MDP-2-P, MDMA and other “ecstasy”-like substances, if they exist at all, would incur costs if this proposed rule were finalized. The primary costs associated with this proposed rule would be the annual registration fees associated with list I chemicals ($3,699 for manufacturers and $1,850 for distributors, importers, and exporters). However, any manufacturer that uses esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, for legitimate 3,4-MDP-2-P, MDMA and other “ecstasy”-like substances production would already be registered with DEA and have all security and other handling processes established because of the controls already in place on 3,4-MDP-2-P, MDMA and other “ecstasy”-like substances, resulting in minimal cost to those entities. As there are different forms of handling the scheduled substances versus the list I chemical (distribution of MDMA and other “ecstasy”-like substances versus exporting esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA), this could require a separate registration for the different handling of the substances. If an entity is already registered to handle, manufacture, import, or export a scheduled substance, the entity would not need an additional registration for the list I chemical, provided it is handling the list I chemical in the same manner that it is registered for with the scheduled substance, or as a coincident activity permitted by 21 CFR 1309.21. Even with the possibility of these additional registrations, DEA believes that the cost would be minimal.

DEA has identified 14 domestic suppliers of one ester of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA. It is difficult to estimate the quantity of

esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, these suppliers distribute. Chemical distributors often have items in their catalog while not actually having any material level of sales. If this proposed rule is finalized, suppliers for the legitimate use of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, if any, are expected to choose the least-cost option, and stop selling the minimal quantities of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, rather than incur the registration cost. Because DEA believes the quantities of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, supplied for the legitimate manufacturing of 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances are minimal, DEA estimates that the cost of foregone sales is minimal; and thus, the cost of this proposed rule is minimal. DEA welcomes any public comment regarding this estimate.

This analysis excludes consideration of any economic impact to those businesses that facilitate the manufacture and distribution of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, for the production of manufacturing illicit 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances. As a law enforcement organization and as a matter of principle, DEA believes considering the economic utility of facilitating the manufacture of illicit 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances would be improper.

Benefits

Controlling esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, is expected to prevent, curtail, and limit the unlawful manufacture and distribution of the controlled substances 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances. As a list I chemical, handling of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, would require registration with DEA, various controls, and monitoring as required by the CSA. This proposed rule is also expected to assist in

preventing the possible theft or diversion of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, from any legitimate firms. DEA also believes control is necessary to prevent unscrupulous chemists from synthesizing esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, and selling them (as unregulated material) through the internet and other channels, to individuals who may wish to acquire unregulated chemical intermediates for the purpose of manufacturing illicit 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances.

In summary, DEA conducted a qualitative analysis of costs and benefits of this proposed rule. DEA believes this proposed action, if finalized, will minimize the diversion of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA. DEA believes the market for esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, for the legitimate manufacturing of 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances is minimal. Therefore, any potential cost as a result of this regulation is minimal.

Executive Order 12988, Civil Justice Reform

This proposed regulation meets the applicable standards set forth in sections 3(a) and 3(b)(2) of E.O. 12988 to eliminate drafting errors and ambiguity, minimize litigation, provide a clear legal standard for affected conduct, and promote simplification and burden reduction.

Executive Order 13132, Federalism

This proposed rulemaking does not have federalism implications warranting the application of E.O. 13132. The proposed rule does not have substantial direct effects on the States, on the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

This proposed rule does not have tribal implications warranting the application of E.O. 13175. It does not have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

Regulatory Flexibility Act

The Administrator, in accordance with the Regulatory Flexibility Act (RFA),[29] has reviewed this proposed rule and by approving it certifies that it will not have a significant economic impact on a substantial number of small entities.

As discussed above, if finalized as proposed, esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, would be subject to all the regulatory controls and administrative, civil, and criminal sanctions applicable to the manufacture, distribution, importation, and exportation of list I chemicals. Esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, are used in, and are important to, the illicit manufacture of the list I chemical 3,4-MDP-2-P, the schedule I controlled substance MDMA, and other "ecstasy"-like substances. DEA has not identified any legitimate industrial use for esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, other than their role as chemical intermediates in the production of 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances. Therefore, DEA believes the vast majority, if not all, of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, are used for the illicit manufacturing of 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances.

The primary costs associated with this proposed rule are the annual registration fees ($3,699 for manufacturers and $1,850 for distributors, importers, and exporters). Additionally, any manufacturer that uses 3,4-MDP-2-P methyl glycidic acid for

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[29] 5 U.S.C. 601-612.

legitimate 3,4-MDP-2-P, MDMA and other "ecstasy"-like substances production would already be registered with DEA and have all security and other handling processes in place, resulting in minimal cost.

DEA has identified 14 domestic suppliers of one ester of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA. It is difficult to estimate the quantity of esters of 3,4-MDP-2-P methyl glycidic acid, not listed elsewhere in the CSA, these suppliers distribute. Chemical distributors often have items in their catalog while not actually having any material level of sales. Therefore, DEA estimates the cost of this rule on any affected small entity is minimal. DEA welcomes any public comment regarding this estimate. Based on these factors, DEA projects that this rule, if promulgated, will not result in a significant economic impact on a substantial number of small entities.

Unfunded Mandates Reform Act of 1995

On the basis of information contained in the RFA section above, DEA has determined and certifies pursuant to the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1501 *et seq.*, that this action would not result in any Federal mandate that may result "in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100,000,000 or more (adjusted annually for inflation) in any 1 year * * *." Therefore, neither a Small Government Agency Plan nor any other action is required under provisions of UMRA.

Paperwork Reduction Act of 1995

This rule requires compliance with the following existing OMB collections: 1117-0023 and 1117-0029. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

List of Subjects in 21 CFR Part 1310

Administrative practice and procedure, Drug traffic control, Exports, Imports, Reporting and recordkeeping requirements.

Accordingly, for the reasons set forth in the preamble, DEA proposes to amend 21 CFR part 1310 as follows:

PART 1310—RECORDS AND REPORTS OF LISTED CHEMICALS AND CERTAIN MACHINES; IMPORTATION AND EXPORTATION OF CERTAIN MACHINES

1. The authority citation for 21 CFR part 1310 continues to read as follows:

Authority: 21 U.S.C. 802, 827(h), 830, 871(b), 890.

2. In § 1310.02 amend paragraph (a) (35) to read as follows:

§ 1310.02 Substances covered.

* * * * *

(a) * * *

(35) 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its esters, not listed elsewhere in the CSA, its optical and geometric isomers, its salts, salts of its optical and geometric isomers, salts of its esters, not listed elsewhere in the CSA, and any combination thereof, whenever the existence of such is possible, including the following: (i) Ethyl ester of 3,4-MDP-2-P methyl glycidic acid (ethyl 3-(benzo[d][1,3]dioxol-5-yl)-2-methyloxirane-2-carboxylate; 3,4-MDP-2-P ethyl glycidate; PMK ethyl glycidate) (ii) Propyl ester of 3,4-MDP-2-P methyl glycidic acid (propyl 3-(benzo[d][1,3]dioxol-5-yl)-2-methyloxirane-2-carboxylate; 3,4-MDP-2-P propyl glycidate; PMK propyl glycidate)	8525

(iii) Isopropyl ester of 3,4-MDP-2-P methyl glycidic acid (isopropyl 3-(benzo[d][1,3]dioxol-5-yl)-2-methyloxirane-2-carboxylate; 3,4-MDP-2-P isopropyl glycidate; PMK isopropyl glycidate) (iv) Butyl ester of 3,4-MDP-2-P methyl glycidic acid (butyl 3-(benzo[d][1,3]dioxol-5-yl)-2-methyloxirane-2-carboxylate; 3,4-MDP-2-P butyl glycidate; PMK butyl glycidate) (v) Isobutyl ester of 3,4-MDP-2-P methyl glycidic acid (isobutyl 3-(benzo[d][1,3]dioxol-5-yl)-2-methyloxirane-2-carboxylate; 3,4-MDP-2-P isobutyl glycidate; PMK isobutyl glycidate) (vi) sec-Butyl ester of 3,4-MDP-2-P methyl glycidic acid (*sec*-butyl 3-(benzo[d][1,3]dioxol-5-yl)-2-methyloxirane-2-carboxylate; 3,4-MDP-2-P sec-butyl glycidate; PMK sec-butyl glycidate (vii) tert-Butyl ester of 3,4-MDP-2-P methyl glycidic acid (*tert*-Butyl 3-(benzo[d][1,3]dioxol-5-yl)-2-methyloxirane-2-carboxylate; 3,4-MDP-2-P tert-butyl glycidate; PMK tert-butyl glycidate, as list I chemicals under the CSA.	

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3. In §1310.04:

a. Amend paragraph (g)(1)(xi) to read as follows:

§ 1310.04 Maintenance of records.

* * * * *

(g) * * *

(1) * * * (xi) 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its esters, not listed elsewhere in the CSA, its optical and geometric isomers, its salts,

salts of its optical and geometric isomers, salts of its esters, not listed elsewhere in the CSA, and any combination thereof, whenever the existence of such is possible

* * * * *

4. In § 1310.09 amend (q) to read as follows:

§ 1310.09 Temporary exemption from registration.

* * * * *

(q)(1) Each person required under 21 U.S.C. 822 and 957 to obtain a registration to manufacture, distribute, import, or export regulated forms of 3,4-MDP-2-P methyl glycidate (PMK glycidate); 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its esters, not listed elsewhere in the CSA, its optical and geometric isomers, its salts, salts of its optical and geometric isomers, salts of its esters, not listed elsewhere in the CSA, and any combination thereof, whenever the existence of such is possible; and *alpha*-phenylacetoacetamide (APAA), including regulated chemical mixtures pursuant to section 1310.12, is temporarily exempted from the registration requirement, provided that DEA receives a properly completed application for registration or application for exemption for a chemical mixture containing regulated forms of 3,4-MDP-2-P methyl glycidate (PMK glycidate); 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its esters, not listed elsewhere in the CSA, optical and geometric isomers, salts, salts of its optical and geometric isomers, salts of its esters, not listed elsewhere in the CSA; or *alpha*-phenylacetoacetamide (APAA), pursuant to section 1310.13 on or before 30 days after the publication of a rule finalizing this action. The exemption would remain in effect for each person who has made such application until the Administration has approved or denied that application. This exemption applies only to registration; all other chemical control requirements set forth in the Act and parts 1309, 1310, 1313, and 1316 of this chapter remain in full force and effect.

(2) Any person who manufactures, distributes, imports, or exports a chemical mixture containing regulated forms of 3,4-MDP-2-P methyl glycidate (PMK glycidate); 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its esters, not listed elsewhere in the CSA, its optical and geometric isomers, its salts, salts of its optical and geometric isomers, salts of its esters, not listed elsewhere in the CSA, and any combination thereof, whenever the existence of such is possible; or *alpha*-phenylacetoacetamide (APAA), whose application for exemption is subsequently denied by DEA must obtain a registration with DEA. A temporary exemption from the registration requirement would also be provided for those persons whose application for exemption is denied, provided that DEA receives a properly completed application for registration on or before 30 days following the date of official DEA notification that the application for exemption has been denied. The temporary exemption for such persons would remain in effect until DEA takes final action on their registration application.

5. In § 1310.12, the Table of Concentration Limits in paragraph (c) is amended by modifying the listing for 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its salts, optical and geometric isomers, and salts of isomers to read as follows:

§ 1310.12 Exempt chemical mixtures.

* * * * *

(c) * * *

TABLE OF CONCENTRATION LIMITS

	DEA chemical code number	Concentration	Special conditions
*******			
3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its esters, not listed elsewhere in the CSA, its optical and geometric isomers, its salts, salts of	8525	Not exempt at any concentration	Chemical mixtures containing any amount of 3,4-MDP-2-P methyl glycidic acid (PMK glycidic acid) and its

its optical and geometric isomers, and salts of its esters, not listed elsewhere in the CSA, and any combination thereof, whenever the existence of such is possible ……	esters, not listed elsewhere in the CSA, are not exempt.
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SIGNING AUTHORITY

This document of the Drug Enforcement Administration was signed on July 28, 2026, by DEA Administrator Terrance C. Cole. That document with the original signature and date is maintained by DEA. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DEA Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of DEA. This administrative process in no way alters the legal effect of this document upon publication in the Federal Register.

Heather Achbach,
Federal Register Liaison Officer,
Drug Enforcement Administration.

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