DEPARTMENT OF JUSTICE

Drug Enforcement Administration

21 CFR Part 1308

[Docket No. DEA-498]

Schedules of Controlled Substances: Placement of 4,4’-DMAR in Schedule I

AGENCY: Drug Enforcement Administration, Department of Justice.

ACTION: Final rule.

SUMMARY: With the issuance of this final rule, the Drug Enforcement Administration places 4,4’-dimethylaminorex (common name: 4,4’-DMAR) including its salts, isomers, and salts of isomers, in schedule I of the Controlled Substances Act. This action is being taken to enable the United States to meet its obligations under the 1971 Convention on Psychotropic Substances. This action imposes the regulatory controls and administrative, civil, and criminal sanctions applicable to schedule I controlled substances on persons who handle (manufacture, distribute, import, export, engage in research, conduct instructional activities or chemical analysis, or possess), or propose to handle 4,4’-DMAR.

DATES: Effective date: [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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

SUPPLEMENTARY INFORMATION:

Legal Authority

U.N.T.S. 175, as amended. Procedures respecting changes in drug schedules under the 1971 Convention are governed domestically by 21 U.S.C. 811(d)(2-4). When the United States receives notification of a scheduling decision pursuant to Article 2 of the 1971 Convention adding a drug or other substance to a specific schedule, the Secretary of the Department of Health and Human Services (HHS),\(^1\) after consultation with the Attorney General, shall first determine whether existing legal controls under subchapter I of the Controlled Substances Act (CSA) and the Federal Food, Drug, and Cosmetic Act meet the requirements of the schedule specified in the notification with respect to the specific drug or substance. 21 U.S.C. 811(d)(3). In the event that the Secretary of HHS (Secretary) did not so consult with the Attorney General, and the Attorney General did not issue a temporary order, as provided under 21 U.S.C. 811(d)(4), the procedures for permanent scheduling are set forth in 21 U.S.C. 811(a) and (b). Pursuant to 21 U.S.C. 811(a)(1), the Attorney General may, by rule, add to such a schedule or transfer between such schedules any drug or other substance, if he finds that such drug or other substance has a potential for abuse, and makes with respect to such drug or other substance the findings prescribed by 21 U.S.C. 812(b) for the schedule in which such drug or other substance is to be placed. The Attorney General has delegated this scheduling authority to the Administrator of the Drug Enforcement Administration (DEA Administrator or Administrator). 28 CFR 0.100.

**Background**

4,4’-Dimethylaminorex (common name: 4,4’-DMAR; other names: 4,5-dihydro-4-methyl-5-(4-methylphenyl)-2-oxazolamine; 4-methyl-5-(4-methylphenyl)-4,5-dihydro-1,3-oxazol-2-amine) is a synthetic stimulant drug structurally related to 4-

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\(^1\) As discussed in a memorandum of understanding entered into by the Food and Drug Administration (FDA) and the National Institute on Drug Abuse (NIDA), FDA acts as the lead agency within HHS in carrying out the Secretary’s scheduling responsibilities under the CSA, with the concurrence of NIDA. 50 FR 9518 (March 8, 1985). The Secretary of HHS has delegated to the Assistant Secretary for Health of HHS the authority to make domestic drug scheduling recommendations. 58 FR 35460, July 1, 1993.
methylaminorex (4-MAR), a schedule I substance in the United States and a Schedule I substance in the 1971 Convention. In November 2015, the Director-General of the World Health Organization recommended the Secretary-General of the United Nations (UN Secretary-General) place 4,4’-DMAR in Schedule II of the 1971 Convention, as 4,4’-DMAR produces a spectrum of pharmacological effects similar to psychomotor stimulants listed in Schedule II of the 1971 Convention, and has dependence and abuse potential. In May 2016, the UN Secretary-General advised the Secretary of State of the United States (U.S. Secretary of State) that the Commission on Narcotic Drugs (CND) voted to place 4,4’-dimethylaminorex (4,4’-DMAR) in Schedule II of the 1971 Convention (CND Dec/59/5) during its 59th Session in March 2016.

**DEA and HHS Eight Factor Analyses**

On October 12, 2018, in accordance with 21 U.S.C. 811(b), and in response to DEA’s March 21, 2017 request, HHS provided to DEA a scientific and medical evaluation and a scheduling recommendation for 4,4’-DMAR. DEA subsequently reviewed HHS’ evaluation and recommendation for schedule I placement and all other relevant data, and conducted its own analysis under the eight factors stipulated in 21 U.S.C. 811(c). DEA found, under 21 U.S.C. 812(b)(1), that this substance warrants control in schedule I. Both DEA and HHS analyses are available in their entirety in the public docket for this rule (Docket Number DEA-498) at [http://www.regulations.gov](http://www.regulations.gov) under “Supporting Documents.”

**Notice of Proposed Rulemaking to Schedule 4,4’-DMAR**

On April 7, 2020, DEA published a notice of proposed rulemaking (NPRM) entitled “Schedules of Controlled Substances: Placement of 4,4’-DMAR in schedule I of the CSA.” 85 FR 19401. The NPRM provided an opportunity for interested persons to file a request for hearing in accordance with DEA regulations on or before June 8, 2020. No requests for such a hearing were received by DEA. The NPRM also provided an
opportunity for interested persons to submit comments on the proposed rule on or before June 8, 2020.

**Comments Received**

DEA received two comments on the proposed rule to control 4,4’-DMAR in schedule I of the CSA.

*Support for rulemaking:* One commenter recognized the dangers and public health risks, and supported the placement of 4,4’-DMAR in schedule I.

*DEA Response:* DEA appreciates the comment in support of this rulemaking.

*Dissent for rulemaking:* One commenter stated that the number of 4,4’-DMAR related deaths reported in Europe is small relative to its population, and evidence supporting scheduling is anecdotal. The commenter stated that schedule I control would restrict the ability to conduct research, and suggested that additional research with 4,4’-DMAR should take place first before clamping down. This commenter questioned the appropriateness of control of 4,4’-DMAR as a schedule I substance and suggested schedule II control for this substance.

*DEA Response:* DEA does not agree. As discussed above, in May 2016, the Secretary-General advised the U.S. Secretary of State that the CND voted in March 2016 to place 4,4’-DMAR in Schedule II of the 1971 Convention. As the CSA recognizes, under 21 U.S.C. 801(7), the United States is a party to international conventions, including the 1971 Convention, and is obliged to maintain appropriate control provisions related to the drugs that are covered by the treaty. In addition, DEA conducted an eight-factor analysis pursuant to 21 U.S.C. 811(c), and based its scheduling determination on a comprehensive evaluation of all available data, not just the number of deaths and anecdotal data. As stated in the proposed rulemaking, after careful review of all data, DEA concurred with HHS’ assessment that 4,4’-DMAR has abuse potential comparable to other schedule I (e.g. aminorex and 3,4-
methylenedioxymethamphetamine) or II (d-amphetamine) substances, and is therefore promulgating this final rule placing 4,4’-DMAR in schedule I under the CSA.

With regard to the commenter’s statement that placement of 4,4’-DMAR in schedule I would restrict research on this substance, DEA notes that placing a substance in schedule I does not prohibit research on that substance. Persons interested in conducting research with 4,4’-DMAR can do so provided that they have a DEA schedule I researcher registration and meet all other statutory and regulatory criteria. This registration can be obtained by submitting an application for schedule I registration in accordance with 21 CFR 1301.11, 1301.13, 1301.18, and 1301.32. The CSA provides the specific administrative process for the Attorney General (as delegated to the Administrator), in consultation with the Secretary, to approve the registration for the bonafide research with schedule I drug substances. 21 U.S.C. 823(f); see 21 CFR 1301.18. Thus, DEA believes that adding 4,4’-DMAR in the list of schedule I substances will not restrict any legitimate research.

With regard to the commenter’s suggestion that 4,4’-DMAR be placed under schedule II, as DEA has stated in prior scheduling petitions, “Congress established only one schedule, schedule I, for drugs of abuse with ‘no currently accepted medical use in treatment in the United States’ and ‘lack of accepted safety for use . . . under medical supervision.’” 21 U.S.C. 812(b).” 76 FR 40552 (2011); 66 FR 20038 (2001). As stated by HHS in its scientific and medical evaluation of 4,4’-DMAR, there are currently no Food and Drug Administration (FDA)-approved drug products containing 4,4’-DMAR for any clinical indication, nor are there clinical studies or petitioners that claim an accepted medical use in the United States. Thus, 4,4’-DMAR currently has no accepted
medical use in treatment in the United States.\textsuperscript{2} Therefore, placement of 4,4’-DMAR in schedule I of the CSA is appropriate.

**Scheduling Conclusion**

After consideration of the public comments, the scientific and medical evaluations and accompanying recommendation of HHS, and conducting an independent eight-factor analysis, DEA finds substantial evidence of potential for abuse of 4,4’-DMAR. As such, DEA is permanently scheduling 4,4’-DMAR as a controlled substance under the CSA.

**Determination of Appropriate Schedule**

The CSA establishes five schedules of controlled substances known as schedules I, II, III, IV, and V. The CSA also outlines the findings required to place a drug or other substance in any particular schedule. 21 U.S.C. 812(b). After consideration of the analysis and recommendation of the Assistant Secretary for HHS and review of all other available data, the Administrator of DEA, pursuant to 21 U.S.C. 811(a) and 812(b)(1), finds that:

1. 4,4’-DMAR has a high potential for abuse. This potential is comparable to other schedule I substances (e.g., aminorex and 3,4-methylenedioxymethamphetamine) or schedule II substances (e.g., \textit{d}-amphetamine);
2. 4,4’-DMAR has no currently accepted medical use in treatment in the United States; and
3. There is a lack of accepted safety for use of 4,4’-DMAR under medical supervision.

\textsuperscript{2} Although there is no evidence suggesting that 4,4’-DMAR has a currently accepted medical use in treatment in the United States, it bears noting that a drug cannot be found to have such medical use unless DEA concludes that it satisfies a five-part test. Specifically, with respect to a drug that has not been approved by FDA, to have a currently accepted medical use in treatment in the United States, all of the following must be demonstrated: i. the drug’s chemistry must be known and reproducible; ii. there must be adequate safety studies; iii. there must be adequate and well-controlled studies proving efficacy; iv. the drug must be accepted by qualified experts; and v. the scientific evidence must be widely available. 57 FR 10499 (1992), pet. for rev. denied, Alliance for Cannabis Therapeutics v. DEA, 15 F.3d 1131, 1135 (D.C. Cir. 1994).
Based on these findings, the Administrator concludes that 4,4’-DMAR, including its salts, isomers, and salts of isomers, warrants control in schedule I of the CSA.


**Requirements for Handling 4,4’-DMAR**

4,4’-DMAR is subject to the CSA’s schedule I regulatory controls and administrative, civil, and criminal sanctions applicable to the manufacture, distribution, dispensing, importing, exporting, research, and conduct of instructional activities, including the following:

1. **Registration.** Any person who handles (manufactures, distributes, imports, exports, engages in research, or conducts instructional activities or chemical analysis with, or possesses), or who desires to handle 4,4’-DMAR, must be registered with DEA to conduct such activities pursuant to 21 U.S.C. 822, 823, 957, and 958, and in accordance with 21 CFR parts 1301 and 1312. Any person who currently handles 4,4’-DMAR and is not registered with DEA must submit an application for registration and may not continue to handle 4,4’-DMAR, unless DEA has approved that application, pursuant to 21 U.S.C. 822, 823, 957, and 958 and in accordance with 21 CFR parts 1301 and 1312.

2. **Disposal of stocks.** Any person unwilling or unable to obtain a schedule I registration must surrender all quantities of currently held 4,4’-DMAR, or may transfer all quantities of currently held 4,4’-DMAR to a person registered with DEA. 4,4’-DMAR is required to be disposed of in accordance with 21 CFR part 1317, in addition to all other applicable Federal, State, local, and tribal laws.

3. **Security.** 4,4’-DMAR is subject to schedule I security requirements and must be handled and stored pursuant to 21 U.S.C. 821 and 823 and in accordance with 21 CFR 1301.71–1301.76. Non-practitioners handling 4,4’-DMAR must also comply with the employee screening requirements of 21 CFR 1301.90-1301.93.
4. **Labeling and Packaging.** All labels, labeling, and packaging for commercial containers of 4,4’-DMAR must comply with 21 U.S.C. 825 and 958(e), and be in accordance with 21 CFR part 1302.

5. **Quota.** Only registered manufacturers are permitted to manufacture 4,4’-DMAR in accordance with a quota assigned pursuant to 21 U.S.C. 826 and in accordance with 21 CFR part 1303.

6. **Inventory.** Every DEA registrant who possesses any quantity of 4,4’-DMAR, must take an inventory of 4,4’-DMAR on hand pursuant to 21 U.S.C. 827 and 958 and in accordance with 21 CFR 1304.03, 1304.04, and 1304.11(a) and (d).

   Any person who registers with DEA must take an initial inventory of all stocks of controlled substances (including 4,4’-DMAR) on hand on the date the registrant first engages in the handling of controlled substances, pursuant to 21 U.S.C. 827, 958, and in accordance with 21 CFR 1304.03, 1304.04, and 1304.11(a) and (b).

   After the initial inventory, every DEA registrant must take an inventory of all controlled substances (including 4,4’-DMAR) on hand every two years, pursuant to 21 U.S.C. 827 and 958, and in accordance with 21 CFR 1304.03, 1304.04, and 1304.11.

7. **Records and Reports.** Every DEA registrant must maintain records and submit reports with respect to 4,4’-DMAR, pursuant to 21 U.S.C. 827 and 958(e), and in accordance with 21 CFR parts 1304, 1312, and 1317. Manufacturers and distributors must submit reports regarding 4,4’-DMAR to the Automation of Reports and Consolidated Order System pursuant to 21 U.S.C. 827 and in accordance with 21 CFR parts 1304 and 1312.

8. **Order Forms.** Every DEA registrant who distributes 4,4’-DMAR must comply with the order form requirements, pursuant to 21 U.S.C. 828 and in accordance with 21 CFR part 1305.
9. **Importation and Exportation.** All importation and exportation of 4,4’-DMAR must comply with 21 U.S.C. 952, 953, 957, and 958, and in accordance with 21 CFR part 1312.

10. **Liability.** Any activity involving 4,4’-DMAR not authorized by, or in violation of, the CSA or its implementing regulations, is unlawful, and may subject the person to administrative, civil, and/or criminal sanctions.

**Regulatory Analyses**

*Executive Orders 12866 (Regulatory Planning and Review) and 13563 (Improving Regulation and Regulatory Review)*

In accordance with 21 U.S.C. 811(a), this final scheduling action is subject to formal rulemaking procedures performed “on the record after opportunity for a hearing,” which are conducted pursuant to the provisions of 5 U.S.C. 556 and 557. The CSA sets forth the criteria for scheduling a drug or other substance. Such actions are exempt from review by the Office of Management and Budget (OMB) pursuant to section 3(d)(1) of Executive Order (E.O.) 12866 and the principles reaffirmed in E.O. 13563.

*Executive Order 12988, Civil Justice Reform*

This 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 rulemaking does not have federalism implications warranting the application of E.O. 13132. The 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 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, 5 U.S.C. 601–602, has reviewed this final rule and by approving it certifies that it will not have a significant economic impact on a substantial number of small entities.

DEA is placing the substance 4,4’-DMAR, including its salts, isomers, and salts of isomers, in schedule I of the CSA. This action is being taken to enable the United States to meet its obligations under the 1971 Convention. This action imposes the regulatory controls and administrative, civil, and criminal sanctions applicable to schedule I controlled substances on persons who handle (manufacture, distribute, reverse distribute, import, export, engage in research, conduct instructional activities or chemical analysis with, or possess), or propose to handle 4,4’-DMAR.

Based on the review of HHS’ scientific and medical evaluation and all other relevant data, DEA determined that 4,4’-DMAR has a high potential for abuse, has no currently accepted medical use in treatment in the United States, and lacks accepted safety for use under medical supervision. DEA’s research confirms that there is no legitimate commercial market for 4,4’-DMAR in the United States. Therefore, DEA estimates that no United States entity currently handles 4,4’-DMAR and does not expect any United States entity to handle 4,4’-DMAR in the foreseeable future. DEA concludes that no legitimate United States entity would be affected by this rule. As such, this rule will not have a significant effect on a substantial number of small entities.

Unfunded Mandates Reform Act of 1995
In accordance with the Unfunded Mandates Reform Act (UMRA) of 1995, 2 U.S.C. 1501 et seq., DEA has determined and certifies 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 UMRA of 1995.

Congressional Review Act

This rule is not a major rule as defined by the Congressional Review Act (CRA), 5 U.S.C. 804. However, pursuant to the CRA, DEA is submitting a copy of this final rule to the Government Accountability Office, the House, and the Senate under the CRA.

Paperwork Reduction Act of 1995

This action does not impose a new collection of information under the Paperwork Reduction Act of 1995. 44 U.S.C. 3501–3521. This action would not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. 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 1308

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

For the reasons set out above, 21 CFR part 1308 is amended as follows:

PART 1308—SCHEDULES OF CONTROLLED SUBSTANCES

1. The authority citation for 21 CFR part 1308 continues to read as follows:

Authority: 21 U.S.C. 811, 812, 871(b), 956(b), unless otherwise noted.

2. In § 1308.11, redesignate paragraphs (f)(4) through (8) as (f)(5) through (9) and add a new paragraph (f)(4) to read as follows:
§ 1308.11 Schedule I.

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(f) ***

(4) 4,4’-Dimethylaminorex (4,4’-DMAR; 4,5-dihydro-4-methyl-5-(4-methylphenyl)-2-oxazolamine; 4-methyl-5-(4-methylphenyl)-4,5-dihydro-1,3-oxazol-2-amine)………………………………………………………………………………………………………………………… 1595

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Anne Milgram,
Administrator
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