

August 2, 2023

SUBMITTED VIA CFTC PORTAL

Secretary of the Commission
Office of the Secretariat
U.S. Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: KalshiEX LLC – CFTC Regulation 40.2(a) Notification Regarding the Initial Listing of the “Will room-temperature superconductivity be replicated by <date>?” Contract

Dear Sir or Madam,

Pursuant to Section 5c(c) of the Commodity Exchange Act and Section 40.2(a) of the regulations of the Commodity Futures Trading Commission, KalshiEX LLC (Kalshi) hereby notifies the Commission that it is self-certifying the “Will room-temperature superconductivity be replicated by <date>?” contract (Contract). The Exchange intends to list the contract on an episodic basis. The contract will be initially listed after close-of-business on August 2; it is listed as August 3, 2023 because of limitations of the Commission's online submission portal. The Contract’s terms and conditions (Appendix A) includes the following strike conditions:

- <date>

Along with this letter, Kalshi submits the following documents:

- A concise explanation and analysis of the Contract;
- Certification;
- Appendix A with the Contract’s Terms and Conditions;
- Confidential Appendices with further information; and
- A request for FOIA confidential treatment.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Xavier Sottile
Head of Markets
KalshiEX LLC
xsottile@kalshi.com

KalshiEX LLC

Official Product Name: Will room-temperature superconductivity be replicated by <date>?

Rulebook: SUPERCON

Kalshi Contract Category: Health/Science

Room-temperature superconductor

August 2, 2023

CONCISE EXPLANATION AND ANALYSIS OF THE PRODUCT AND ITS COMPLIANCE WITH APPLICABLE PROVISIONS OF THE ACT, INCLUDING CORE PRINCIPLES AND THE COMMISSION'S REGULATIONS THEREUNDER

Pursuant to Commission Rule 40.2(a)(3)(v), the following is a concise explanation and analysis of the product and its compliance with the Act, including the relevant Core Principles, and the Commission's regulations thereunder.

I. Introduction

The “Will room-temperature superconductivity be replicated by <date>?” Contract is a contract relating to a potential room-temperature superconductor. After careful analysis, Kalshi (hereafter referred to as “Exchange”) has determined that the Contract complies with its vetting framework.

When some materials are cooled down to extremely low temperatures, they in general, non-technical terms, start conducting electricity perfectly without any energy loss. This is known as superconductivity. This means an electric current could theoretically go on forever in a loop of superconducting material. It's like having a road where cars (representing electric current) can drive indefinitely without ever needing to refuel (representing energy loss in typical electrical conduction).¹

The implication of a material that could exhibit superconductivity at room temperature could be dramatic. In the status quo, superconductivity can only be achieved at extremely low temperatures (around minus 460° Fahrenheit). To achieve these low temperatures, materials typically need to be cooled with liquid helium, which is both expensive and logistically challenging. This makes the use of superconductors impractical for many potential applications. If a material could be found or engineered that exhibited superconductivity at room temperature (around 20-25 degrees Celsius or 68-77 degrees Fahrenheit), it would eliminate the need for such extreme cooling. This would make the technology more practical, less expensive, and more accessible for a variety of applications.

¹ <https://www.popsoci.com/science/room-temperature-superconductor/>

In July 2023, a group of Korean researchers purportedly found that mineral composite named LK-99 did exhibit such properties. This research has yet to be replicated by a peer reviewed paper. Both peer review and replication are critical parts of the scientific method necessary to determine if initial, unreviewed research is credible for future use.

Further information about the Contract, including an analysis of its risk mitigation and price basing utility, as well as additional considerations related to the Contract, is included in Confidential Appendices B, C, and D.

Pursuant to Section 5c(c) of the Act and CFTC Regulations 40.2(a), the Exchange hereby certifies that the listing of the Contract complies with the Act and Commission regulations under the Act.

General Contract Terms and Conditions: The Contract operates similar to other event contracts that the Exchange lists for trading. The minimum price fluctuation is \$0.01 (one cent). Price bands will apply so that Contracts may only be listed at values of at least \$0.01 and at most \$0.99. Further, the Contract is sized with a one-dollar notional value and has a minimum price fluctuation of \$0.01 to enable Members to match the size of the contracts purchased to their economic risks. The Exchange has further imposed position limits (defined as maximum loss exposure) of \$25,000 USD on the Contract. As outlined in Rule 5.12 of the Rulebook, trading shall be available at all times outside of any maintenance windows, which will be announced in advance by the Exchange. Members will be charged fees in accordance with Rule 3.6 of the Rulebook. Fees are charged in such amounts as may be revised from time to time to be reflected on the Exchange's Website. A new Source Agency can be added via a contract amendment. All instructions on how to access the Underlying are non-binding and are provided for convenience only and are not part of the binding Terms and Conditions of the Contract. They may be clarified at any time. Furthermore, the Contract's payout structure is characterized by the payment of an absolute amount to the holder of one side of the option and no payment to the counterparty. During the time that trading on the Contract is open, Members are able to adjust their positions and trade freely. After trading on the Contract has closed, the Expiration Value and Market Outcome are determined. The market is then settled by the Exchange, and the long position holders and short position holders are paid according to the Market Outcome. In this case, "long position holders" refers to Members who purchased the "Yes" side of the Contract and "short position holders" refers to Members who purchased the "No" side of the Contract. If the Market Outcome is "Yes," meaning that superconductivity at room-temperature has been reported by <date> (see Appendix A for details), then the long position holders are paid an absolute amount proportional to the size of their position and the short position holders receive no payment. If the Market Outcome is "No," then the short position holders are paid an absolute amount

proportional to the size of their position and the long position holders receive no payment. Specification of the circumstances that would trigger a Market Outcome of “Yes” are included below in the section titled “Payout Criterion” in Appendix A.

**CERTIFICATIONS PURSUANT TO SECTION 5c OF THE COMMODITY EXCHANGE
ACT, 7 U.S.C. § 7A-2 AND COMMODITY FUTURES TRADING COMMISSION RULE
40.2, 17 C.F.R. § 40.2**

Based on the above analysis, the Exchange certifies that:

- The Contract complies with the Act and Commission regulations thereunder.
- This submission (other than those appendices for which confidential treatment has been requested) has been concurrently posted on the Exchange's website at <https://kalshi.com/regulatory/filings>.

Should you have any questions concerning the above, please contact the exchange at ProductFilings@kalshi.com.



By: Xavier Sottile
Title: Head of Markets
Date: August 2, 2023

Attachments:

Appendix A - Contract Terms and Conditions

Appendix B (Confidential) - Further Considerations

Appendix C (Confidential) - Source Agency

Appendix D (Confidential) - Compliance with Core Principles

APPENDIX A – CONTRACT TERMS AND CONDITIONS

**Official Product Name: Will room-temperature superconductivity be replicated by <date>?
Rulebook: SUPERCON**

SUPERCON

Scope: These rules shall apply to this contract.

Underlying: The Underlying for this Contract is peer-reviewed research on superconductivity (excluding research conducted by researchers at the institutions of the authors of the two July 2023 papers on LK-99).²³ Such research must be published by a journal in the first quartile of Condensed Matter Physics journals ranked by SCImago Journal Rank at the time of resolution or any journal with a SJR rank of >1.0 .⁴ Revisions to the Underlying made after Expiration will not be accounted for in determining the Expiration Value.

Source Agency: The Source Agency is Kalshi.

Type: The type of Contract is an Event Contract.

Issuance: The Contract will be issued on a custom basis.

<date>: <date> refers to a calendar date specified by Kalshi. Kalshi may list iterations of the Contract corresponding to different statistical periods of <date>.

Payout Criterion: The Payout Criterion for the Contract encompasses the Expiration Values that a peer-reviewed research on superconductivity (excluding research conducted by researchers at the institutions of the authors of the two July 2023 papers on LK-99) reports the discovery of a material that has both a critical temperature (T_c) which exceeds 296 kelvin (73.13 degrees Fahrenheit), electrical resistivity of 10^{-10} ohm-centimeters or lower, and which demonstrates the Meissner effect. That material need not be LK-99.

Minimum Tick: The Minimum Tick size for the referred Contract shall be \$0.01.

Position Limit: The Position Limit for the \$1 referred Contract shall be \$25,000 per Member.

Last Trading Date: The Last Trading Date of the Contract will be the sooner of the first 10:00 AM ET following the occurrence of an event encompassed by the Payout Criterion (whereupon the Last Trading Time will be 10:00 AM ET) or <date> (whereupon the Last Trading Time will be 11:59 PM ET).

² <https://arxiv.org/abs/2307.12008>

³ <https://arxiv.org/abs/2307.12037>

⁴ <https://www.scimagojr.com/journalrank.php>

Settlement Date: The Settlement Date of the Contract shall be no later than the day after the Expiration Date, unless the Market Outcome is under review pursuant to Rule 7.1.

Expiration Date: The Expiration Date of the Contract shall be the sooner of the date of the first 10:00 AM ET following the occurrence of an event that is encompassed in the Payout Criterion or the first 10:00 AM ET following <date>.

Expiration time: The Expiration time of the Contract shall be 10:00 AM ET.

Settlement Value: The Settlement Value for this Contract is \$1.00.

Expiration Value: The Expiration Value is the value of the Underlying as documented by the Source Agency on the Expiration Date at the Expiration time.

Contingencies: Before Settlement, Kalshi may, at its sole discretion, initiate the Market Outcome Review Process pursuant to Rule 6.3(c) of the Rulebook.