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|--|---|--|--|---|---|--------------------------------|------------------------------|---|--|
| NRC FORM 7 (02-2016) 10 CFR 110 |  | U. S. NUCLEAR REGULATORY COMMISSION | APPROVED BY OMB: NO. 3150-0027 EXPIRES: 11/30/2018 <small>Estimated burden per response to comply with this mandatory collection request: 2.4 hours. This submittal is reviewed to ensure that the applicable statutory, regulatory, and policy considerations are satisfied. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollections.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0027), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</small> | | | | | | |
| APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) <i>(See Instructions on Pages 4 and 5)</i> | | | | | | | | | |
| PART A. FOR NRC USE ONLY | | <input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC | | | | | | | |
| LICENSE NUMBER <div style="font-size: 1.2em; color: blue;">XMAT429/02</div> | | DOCKET NUMBER <div style="font-size: 1.2em; color: blue;">11006116</div> | | | | | | | |
| DATE RECEIVED <div style="font-size: 1.2em; color: blue;">SEP 06 2018</div> | | ADAMS ACCESSION NUMBER | | | | | | | |
| PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS, OR CONSENT REQUESTS <small>(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)</small> | | | | | | | | | |
| 1. NAME AND ADDRESS OF APPLICANT/LICENSEE Matheson Tri-Gas, Inc. 6775 CENTRAL AVENUE NEWARK, CA 94560 | | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1a. NAME OF APPLICANT'S CONTACT SCOTT DUFF</td> <td style="width: 50%;">1b. APPLICANT'S REFERENCE NUMBER MPGK0115-TNST0116</td> </tr> <tr> <td>1c. PHONE NUMBER 9725605643</td> <td>1d. FAX NUMBER 9725019549</td> </tr> <tr> <td colspan="2">1e. E-MAIL ADDRESS sduff@mathesongas.com</td> </tr> </table> | | 1a. NAME OF APPLICANT'S CONTACT SCOTT DUFF | 1b. APPLICANT'S REFERENCE NUMBER MPGK0115-TNST0116 | 1c. PHONE NUMBER 9725605643 | 1d. FAX NUMBER 9725019549 | 1e. E-MAIL ADDRESS sduff@mathesongas.com | |
| 1a. NAME OF APPLICANT'S CONTACT SCOTT DUFF | 1b. APPLICANT'S REFERENCE NUMBER MPGK0115-TNST0116 | | | | | | | | |
| 1c. PHONE NUMBER 9725605643 | 1d. FAX NUMBER 9725019549 | | | | | | | | |
| 1e. E-MAIL ADDRESS sduff@mathesongas.com | | | | | | | | | |
| 2. TYPE OF ACTION REQUESTED <i>(Check One)</i> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> EXPORT (Parts B, C, E) <input type="checkbox"/> IMPORT (Parts B, D, E) </div> <div style="width: 45%;"> <input checked="" type="checkbox"/> AMENDMENT/RENEWAL Current License Number: XMAT429/01 </div> <div style="width: 45%;"> <input type="checkbox"/> CONSENT REQUEST (Parts B, C) Current License Number: </div> </div> | | | | | | | | | |
| 3. CONTRACT NUMBER(S) | 4. FIRST SHIPMENT DATE 12/31/2018 | 5. LAST SHIPMENT DATE 12/31/2020 | 6. PROPOSED EXPIRATION DATE 2 years | | | | | | |
| PART C. TO BE COMPLETED FOR EXPORT LICENSES, AMENDMENTS, OR RENEWALS <small>(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)</small> | | | | | | | | | |
| 7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPORT Matheson Tri-Gas, Inc. 1650 Enterprise Parkway Twinsburg, OH 44087 USA Matheson Tri-Gas, Inc. 1700 Scepter Road Waverly, TN 37185 USA (please see page 3 continued) | | 8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S) Matheson Gas Products Korea(MGPK) 94, Eumbongmyeon Road Eumbong-Myeon Asan-si 336864 South Korea Taiyo Nippon Sanso Taiwan Inc(TNST) 5F-1, No. 1 SEC 3 Gongdao 5th Road East District Hsinchu City, 30069 Taiwan | | | | | | | |
| 9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) 1. SK Hynix San 136-1 Ami-ri Bubal-eup, Lcheon-si Gyeonggi-do Republic of Korea 2. United Microelectronics Corporation No. 3, Li-Hsin 2nd Road Hsinchu 300-78 Taiwan (please see pg 3 cont'd) | | 10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT CYLINDER CONTENT TO VARY(i.e. 5000L thru 7000L) Deuterium (Heavy Hydrogen) | | | | | | | |
| 7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED Shipping Locations | | 8a. INTERMEDIATE USE(S) Storage until resold | | | | | | | |
| 10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) 2800 Kg | | 10b. MAX ENRICHMENT OR WGT % 99.8% | | | | | | | |
| 10c. MAX ISOTOPE WGT (KG) 99.8% of the 20 | | 11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) South Koera: 200 kg; Taiwan: 2600 kg | | | | | | | |

NRC FORM 7
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U. S. NUCLEAR REGULATORY COMMISSION

**APPLICATION FOR NRC EXPORT OR IMPORT
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)**

| | | | |
|-------------------------------------|----------------------------------|------------------------|---|
| LICENSE NUMBER XMAT429/02 | DOCKET NUMBER 11006114 | ADAMS ACCESSION NUMBER | <input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC |
|-------------------------------------|----------------------------------|------------------------|---|


PART D. TO BE COMPLETED FOR IMPORT LICENSES, AMENDMENTS, OR RENEWALS

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

| | | | |
|---|---|--|---------------------------|
| 12. NAME(S) / ADDRESS(ES) OF FOREIGN SUPPLIERS AND/OR OTHER PARTIES TO IMPORT | 13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S) | 14. NAME(S) / ADDRESS(ES) OF ULTIMATE U. S. CONSIGNEE(S) | |
| 12a. NRC EXPORT LICENSE NUMBER(S) (if applicable) | 13a. LICENSE NUMBER(S) / EXPIRATION DATE(S) | 14a. LICENSE NUMBER(S) / EXPIRATION DATE(S) | |
| | 13b. INTERMEDIATE USE(S) | 14b. ULTIMATE END USE(S) | |
| 15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES | 15a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) | 15b. MAX ENRICHMENT OR WGT % | 15c. MAX ISOTOPE WGT (KG) |

16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS OR CONSENT REQUEST(S)

| | |
|---|--|
| 17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | 17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |
| 18. CERTIFICATION: I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge. | |
| 18a. PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL Scott Duff Vice President of Logistics and Customer Service, Distribution | 18b. SIGNATURE - AUTHORIZED OFFICIAL  |
| 18c. DATE 8/22/18 | |

NRC FORM 7
(02-2016)
10 CFR 110

U. S. NUCLEAR REGULATORY COMMISSION

**APPLICATION FOR NRC EXPORT OR IMPORT
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)**

| | | | |
|-------------------------------------|----------------------------------|------------------------|---|
| LICENSE NUMBER XMAT429/02 | DOCKET NUMBER 11006116 | ADAMS ACCESSION NUMBER | <input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC |
|-------------------------------------|----------------------------------|------------------------|---|

ADDITIONAL INFORMATION (Reference applicable block numbers from page 1 and/or page 2 for each entry)

Block 7. SUPPLIER OR OTHER PARTY(IES) TO THE EXPORT:(cont'd)
(Supplier)

1. Matheson Tri-Gas, Inc.
6775 Central Avenue
Newark, CA 94560

Block 9. ULTIMATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES): (cont'd)
(For non-nuclear end use in semiconductor devices)

2. United Microelectronics Corporation (cont'd)

No. 3, Li-Hsin 2nd Road
Hsinchu Science Park
Hsinchu 300-78
Taiwan

3. Samsung

416 Maeton 3-dong
Yeongton-gu, Suwon-si
Gyeonggi-do
Republic of Korea

4. Taiwan Semiconductor Manufacturing Company Ltd.(TSMC)

No. 8, LiHsin Road VI
Hsinchu Science Park
Hsinchu 300-78
Taiwan

ADDITIONAL INFORMATION: (RENEWAL/INFORMATION CHANGE REQUEST FOR)

Block 1a. Change of name of applicant's contact: Has changed due to employment changes from Karen Giovannoni to Scott Duff, VP of Logistics and Customer Service, Distribution.

Block 2. Request for Renewal of current license # XMAT429/01 Docket# 11006116

Block 6. Requesting expiration date to be extended from December 31, 2018 to December 31, 2020

Block 7. SUPPLIER OR OTHER PARTY(IES) TO THE EXPORT(Change):

A) Change in the address for Matheson Tri-Gas Inc.'s Tennessee location: (Old add: 200 Matheson Gas Co. Lane, New Johnsonville, TN 37314 USA; New address: 1700 Scepter Road, Waverly TN. 37185 USA).

B) Requesting to add our Newark, CA plant to SUPPLIER OR OTHER PARTY(IES): Matheson Tri-Gas, Inc. 6775 Central Avenue, Newark, CA 94560 USA

Block 8. Change of address for Intermediate Consignee: Taiyo Nippon Sanso Taiwan Inc (TNST) 5f-1, No. 1 Sec 3 Gongdao 5th Road East District Hsinchu City, 30069 Taiwan

委託代理進口書

WRITTEN ASSURANCE OF END USES

| | | | | | |
|---|--|---------------------|---------------------------------|--------------------------------|---------------------------------------|
| Exporter: 出口商 | MATHESON TRI GAS | | Telephone: 電話 | (972)-560-4172 214-650-2712 | |
| Address 地址 & Website: 網址 | 6775 Central Avenue Newark, CA 94560-3936 http://www.mathesontrigas.com/edge/ | | Contact: 聯絡人 | Wilmore, Samarattra | |
| Commodity 貨品名稱 | D2 Deuterium 氘氣 | Specification 規格 | 99.999% (5N) 6000L (1.002kg) | Quantity 數量 | 60 CYL 1CYL=6000L (1.002kg) |
| End user: 貨品之最終用途 | 供聯華電子 UMC 製程研發使用 | | | | |
| The consignees /importer/end user undertakes: 進口商或中間商,及 最終使用人切結 | <p>本公司委由台灣大陽日酸股份有限公司進口該氣體供製程研發使用, 其使用期限為該氣體有效日 Expiration Date 止. (Shelf life: 3 years)</p> <p>申報內容已據實填報, 並切結:</p> <p>(1) 本案貨品不供作生產、發展核子、生化、飛彈或其他任何大規模毀滅性武器。</p> <p>(2) 非經中華民國政府許可不得再輸出、轉售、修改最終用途及最終使用人。</p> <p>We certify that the information in this statement is true in our good faith, and undertake:</p> <p>(1) The subject commodities will not be used for producing or developing nuclear weapons, chemical and biological weapons, missiles, or any other weapons of mass destruction.</p> <p>(2) A written approval by the Government authorized agency of ROC will be obtained prior to any reexport, resell, or modification of subject commodities' original end-use or end-user</p> | | | | |
| Intermediate consignees/ Importer 中間商或進口商 | 台灣大陽日酸股份有限公司 TAIYO NIPPON SAN SO TAIWAN, INC. | | Telephone: 電話 | 03-572-6588 | |
| Address 地址 | 新竹市東區公道五路三段 1 號 5 樓之 1 | | Contact: 聯絡人 | Lynn Peng 彭嘉玲 | |
| Ultimate End User: 最終使用人 | 聯華電子股份有限公司 United Microelectronics Corporation | | Telephone: 電話 | 03-5782258 分機 32902 | |
| Address: 地址 | 新竹科學工業園區力行二路 3 號 | | Contact: 聯絡人 | 莊淑美 | |
| Signature 簽名 (Signature of person authorized by end user) |  | | Date 日期 | 2018/03/20 | |

委託代理進口書
WRITTEN ASSURANCE OF END USES

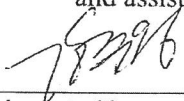
| | | | | | |
|---|--|---------------------|-------------------------------------|----------------|------------------------------------|
| Exporter: 出口商 | MATHESON TRI GAS | Telephone: 電話 | (972) 560-4491 | | |
| Address 地址 & Website: 網址 | 6775 Central Avenue Newark, CA 94560-3936 http://www.mathesontrigas.com/edge/ | Contact: 聯絡人 | Otto Chang | | |
| Commodity 貨品名稱 | D2 Deuterium 氘氣 | Specification 規格 | 99.999% (5N) 6000L (1.002kg) | Quantity 數量 | 8 CYL *1cyl =6000L (1.002kg) |
| End user: 貨品之最終用途 | 供台積電 TSMC 製程研發使用 | | | | |
| The consignees /importer/end user undertakes: 進口商或中間商,及 最終使用人切結 | <p>本公司委由台灣大陽日酸股份有限公司進口該氣體供製程研發使用,其使用期限為該氣體有效日 Expiration Date 止. (Shelf life: 3 years)</p> <p>申報內容已據實填報,並切結:</p> <p>(1)本案貨品不供作生產、發展核子、生化、飛彈或其他任何大規模毀滅性武器。</p> <p>(2)非經中華民國政府許可不得再輸出、轉售、修改最終用途及最終使用人。</p> <p>We certify that the information in this statement is true in our good faith, and undertake:</p> <p>(1) The subject commodities will not be used for producing or developing nuclear weapons, chemical and biological weapons, missiles, or any other weapons of mass destruction.</p> <p>(2) A written approval by the Government authorized agency of ROC will be obtained prior to any reexport, resell, or modification of subject commodities' original end-use or end-user</p> | | | | |
| Intermediate consignees/ Importer 中間商或進口商 | 台灣大陽日酸股份有限公司 TAIYO NIPPON SAN SO TAIWAN, INC. | Telephone: 電話 | 03-5634988 TEL:03-5726588 | | |
| Address 地址 | 新竹市東區埔頂路2-5號4樓之1 新竹市公道五路三段1號5樓之1 | Contact: 聯絡人 | Olive Liu 劉麗瑛 | | |
| Ultimate End User: 最終使用人 | 台灣積體電路製造股份有限公司 | Telephone: 電話 | 03-03-5636688 | | |
| Address:地址 | 300-77 新竹科學工業園區區區三路 121 號 | Contact: 聯絡人 | 陳建光 | | |
| Signature 簽名 (Signature of person authorized by end user) | 陳建光 | Date 日期 | 3/30/2018 | | |



END-USE CERTIFICATION

We, (*Samsung Electronics Co., Ltd*), certify that :

- A. The items to be exported, or replicas thereof, must not be used, directly or indirectly, in any of the activities listed below :
- * Nuclear explosive activities, research or development.
 - * Un-safeguarded nuclear activities, research or development.
 - * Safeguarded and un-safeguarded nuclear activities related to facilities for:
 1. Chemical processing of irradiated special nuclear or source material.
 2. Production of heavy water.
 3. Separation of isotopes of source and special nuclear material; or
 4. Fabrication of nuclear reactor fuel containing plutonium.
 - * Maritime nuclear propulsion activities, research or development.
 - * Chemical and Biological weapons activities, research or development.
 - * Rocket system and unmanned air vehicle activities, research or development.
- B. Written authorization must be obtained from Matheson Tri-Gas, Inc. and the U.S. Department of Commerce Bureau of Export Administration prior to export, release or transfer by any means or method of any Matheson Tri-Gas, Inc. technology, technical data and assistance or the product of such technical data and assistance.


End-user's Signature

Kang, Joon Hyung
End-user's Name

Senior Manager
End-user's Title

San #24 Nongseo-Dong Giheung-Gu
End-user's Street Address

Youngin-City, Gyeonggi-Do
End-user's City and State

South Korea
End-user's Country

100-FRM-EX001 (11-11-06)

Rev. 0

**TO BE ON OFFICIAL END-USER
LETTERHEAD**



MATHESON
TRI-GAS®
ask...The Gas Professionals



END-USE CERTIFICATION

We, *Hynix*, certify that :

- A. The items to be exported, or replicas thereof, must not be used, directly or indirectly, in any of the activities listed below :
- * Nuclear explosive activities, research or development.
 - * Un-safeguarded nuclear activities, research or development.
 - * Safeguarded and un-safeguarded nuclear activities related to facilities for:
 1. Chemical processing of irradiated special nuclear or source material.
 2. Production of heavy water.
 3. Separation of isotopes of source and special nuclear material; or
 4. Fabrication of nuclear reactor fuel containing plutonium.
 - * Maritime nuclear propulsion activities, research or development.
 - * Chemical and Biological weapons activities, research or development.
 - * Rocket system and unmanned air vehicle activities, research or development.
- B. Written authorization must be obtained from Matheson Tri-Gas, Inc. and the U.S. Department of Commerce Bureau of Export Administration prior to export, release or transfer by any means or method of any Matheson Tri-Gas, Inc. technology, technical data and assistance or the product of such technical data and assistance.

Se Ho Choi
End-user's Signature

Se Ho Choi
End-user's Name

Senior Manager
End-user's Title

San 136-1 Ami-ri Bubal-eub
End-user's Street Address

Icheon-Si, Gyeonggi-do
End-user's City and State

The republic of South Korea
End-user's Country

100-FRM-EX001 (11-11-06)

Rev. 0

**TO BE ON OFFICIAL END-USER
LETTERHEAD**