

# KOLAS 공인표준물질생산기관 인정서

## [주]케미다스

인 정 번 호 : KRMPs-015  
법 인 등 록 번 호 : 134811-0211425  
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상기 기관을 국가표준기본법 제15조, 적합성평가 관리 등에 관한 법률 제8조 및 KS A ISO 17034:2016 에 의거하여 KOLAS 공인표준물질생산 기관으로 인정합니다.



한국인정기구장  
(Korea Laboratory Accreditation Scheme)



# Korea Laboratory Accreditation Scheme

## 제KRMPs-015호

### 1. 화학조성

104. 고순도 표준시약

06. 고순도 유기시약

| RM 코드     | 물질명           | 인증값<br>또는<br>인증범위 | 단위 | 불확도<br>(신뢰수준 약 95 %, $k=2$ )      | 측정방법                          |
|-----------|---------------|-------------------|----|-----------------------------------|-------------------------------|
| KR-PN2542 | Pyribenzoxim  | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-MB001-19,<br>KEM-PL001-19 |
| KR-PN8248 | Ethaboxam     | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-MB001-19,<br>KEM-PL001-19 |
| KR-PN5830 | Cymoxanil     | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-PL001-19                  |
| KR-PN3172 | Etofenprox    | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-PG001-19<br>KEM-PL001-19  |
| KR-PN5869 | Flusilazole   | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-EG001-19                  |
| KR-PN7273 | Hexythiazox   | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-PL001-19                  |
| KR-PN9289 | Napropamide   | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-EG001-19,<br>KEM-PG001-19 |
| KR-PN6031 | Propiconazole | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-EG001-19,<br>KEM-PG001-19 |
| KR-PN2173 | Simetryn      | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-EG001-19,<br>KEM-PG001-19 |
| KR-PN3748 | Tebuconazole  | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-EG001-19,<br>KEM-PG001-19 |
| KR-PN3919 | Tebufenozide  | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-PL001-19                  |
| KR-PN9172 | Thiamethoxam  | 85 이상             | %  | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-PL001-19                  |

# Korea Laboratory Accreditation Scheme

## 105. 표준용액

### 05. 유기물분석용 표준용액

| RM 코드     | 물질명            | 인증값 또는<br>인증범위 | 단위    | 불확도<br>(신뢰수준 약 95 %, $k=2$ )       | 측정방법                          |
|-----------|----------------|----------------|-------|------------------------------------|-------------------------------|
| KR-PS2542 | Pyribenzoxim   | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(95%, $k = 2.45$ ) | KEM-MB001-19,<br>KEM-PL001-19 |
| KR-PS8248 | Ethaboxam      | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-MB001-19,<br>KEM-PL001-19 |
| KR-PS3130 | Bitertanol     | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19                  |
| KR-PS5830 | Cymoxanil      | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-PL001-19                  |
| KR-PS4885 | Cyprodinil     | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19                  |
| KR-PS4564 | Difenoconazole | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19                  |
| KR-PS4477 | Diuron         | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-PL001-19                  |
| KR-PS6013 | Ethalfuralin   | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(95%, $k = 2.31$ ) | KEM-EG001-19<br>KEM-PG001-19  |
| KR-PS3172 | Etofenprox     | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-PG001-19<br>KEM-PL001-19  |
| KR-PS7471 | Fentrazamide   | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(95%, $k = 2.45$ ) | KEM-PL001-19                  |
| KR-PS9142 | Fluopicolide   | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-PL001-19                  |
| KR-PS5869 | Flusilazole    | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19                  |
| KR-PS5647 | Flutolanil     | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19<br>KEM-PG001-19  |
| KR-PS7273 | Hexythiazox    | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-PL001-19                  |
| KR-PS6445 | Isopyrazam     | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-PL001-19                  |
| KR-PS9289 | Napropamide    | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19<br>KEM-PG001-19  |
| KR-PS6031 | Propiconazole  | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19<br>KEM-PG001-19  |
| KR-PS3382 | Pyraclostrobin | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(95%, $k = 2.26$ ) | KEM-PL001-19                  |
| KR-PS2173 | Simetryn       | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19<br>KEM-PG001-19  |
| KR-PS3748 | Tebuconazole   | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-EG001-19<br>KEM-PG001-19  |
| KR-PS3919 | Tebufenozide   | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-PL001-19                  |
| KR-PS9172 | Thiamethoxam   | 9.5 ~ 2 100    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ )  | KEM-PL001-19                  |

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## 105. 표준용액

### 06. 무기물분석용 표준용액

| RM 코드     | 물질명            | 인증값 또는<br>인증범위 | 단위    | 불확도<br>(신뢰수준 약 95 %, $k=2$ )      | 측정방법          |
|-----------|----------------|----------------|-------|-----------------------------------|---------------|
| KR-IP6286 | Aluminum(Al)   | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP5092 | Arsenic(As)    | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP9610 | Barium(Ba)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP9313 | Beryllium(Be)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP6103 | Boron(B)       | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP1117 | Cadmium(Cd)    | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP4492 | Calcium(Ca)    | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP4789 | Cerium(Ce)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP1633 | Chromium(Cr)   | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP3157 | Cobalt(Co)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP1834 | Copper(Cu)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP7369 | Germanium(Ge)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP9019 | Indium(In)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP1096 | Iron(Fe)       | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP4447 | Lead(Pb)       | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP3934 | Magnesium(Mg)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP4327 | Manganese(Mn)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP8305 | Molybdenum(Mo) | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP4726 | Nickel(Ni)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP6682 | Niobium(Nb)    | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP3340 | Phosphorus(P)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP3751 | Potassium(K)   | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |

# Korea Laboratory Accreditation Scheme

## 105. 표준용액

### 06. 무기물분석용 표준용액

| RM 코드     | 물질명                                                                                                                                                                                                                       | 인증값 또는<br>인증범위 | 단위    | 불확도<br>(신뢰수준 약 95 %, $k=2$ )      | 측정방법          |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|-----------------------------------|---------------|
| KR-IP7990 | Selenium(Se)                                                                                                                                                                                                              | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP3418 | Silicon(Si)                                                                                                                                                                                                               | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP2809 | Sodium(Na)                                                                                                                                                                                                                | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP8767 | Tin(Sn)                                                                                                                                                                                                                   | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP4513 | Vanadium(V)                                                                                                                                                                                                               | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP2122 | Zinc(Zn)                                                                                                                                                                                                                  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IP1723 | Zirconium(Zr)                                                                                                                                                                                                             | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KR-IM8359 | Bromide(Br <sup>-</sup> ) Chloride(Cl <sup>-</sup> )<br>Fluoride(F <sup>-</sup> )<br>Nitrate(NO <sub>3</sub> <sup>3-</sup> )<br>Phosphate(PO <sub>4</sub> <sup>3-</sup> )<br>Sulfate(SO <sub>4</sub> <sup>2-</sup> ) 의 혼합 | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-IC001-19  |
| KR-IM6145 | Calcium(Ca)<br>Magnesium(Mg)<br>Potassium(K) Sodium(Na)<br>Phosphorus(P) Silicon(Si)<br>의 혼합                                                                                                                              | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |

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## 105. 표준용액

### 06. 무기물분석용 표준용액

| CRM 코드    | 물질명                                                     | 인증값 또는<br>인증범위                                                                                                                                                                                                                                                                                                                                  | 단위    | 불확도<br>(신뢰수준 약 95 %, $k=2$ )      | 측정방법          |
|-----------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------|---------------|
| KC-IM2470 | Spectrometric oil<br>standard(D3)<br>(Lubricating oil)  | Boron(B)<br>:(2 ~ 120)<br>Molybdenum(Mo)<br>:(2 ~ 120)<br>Zinc(Zn)<br>:(2 ~ 120)                                                                                                                                                                                                                                                                | mg/kg | (0.5 ~ 20) %<br>(약 95%, $k = 2$ ) | ASTM D5185-18 |
| KC-IM4702 | Spectrometric oil<br>standard(D12)<br>(Lubricating oil) | Aluminum(Al)<br>:(2 ~ 120)<br>Chromium(Cr)<br>:(2 ~ 120)<br>Copper(Cu)<br>:(2 ~ 120)<br>Iron(Fe)<br>:(2 ~ 120)<br>Lead(Pb)<br>:(2 ~ 120)<br>Magnesium(Mg)<br>:(2 ~ 120)<br>Nickel(Ni)<br>:(2 ~ 120)<br>Silicon(Si)<br>:(2 ~ 120)<br>Silver(Ag)<br>:(2 ~ 120)<br>Sodium(Na)<br>:(2 ~ 120)<br>Tin(Sn)<br>:(2 ~ 120)<br>Titanium(Ti)<br>:(2 ~ 120) | mg/kg | (0.5 ~ 20) %<br>(약 95%, $k = 2$ ) | ASTM D5185-18 |
| KC-IP6286 | Aluminum(Al)                                            | 9.5 ~ 1 050                                                                                                                                                                                                                                                                                                                                     | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP5092 | Arsenic(As)                                             | 9.5 ~ 1 050                                                                                                                                                                                                                                                                                                                                     | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP9610 | Barium(Ba)                                              | 9.5 ~ 1 050                                                                                                                                                                                                                                                                                                                                     | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP9313 | Beryllium(Be)                                           | 9.5 ~ 1 050                                                                                                                                                                                                                                                                                                                                     | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP6103 | Boron(B)                                                | 9.5 ~ 1 050                                                                                                                                                                                                                                                                                                                                     | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP1117 | Cadmium(Cd)                                             | 9.5 ~ 1 050                                                                                                                                                                                                                                                                                                                                     | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |

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### 06. 무기물분석용 표준용액

| CRM 코드    | 물질명            | 인증값 또는<br>인증범위 | 단위    | 불확도<br>(신뢰수준 약 95 %, $k=2$ )      | 측정방법          |
|-----------|----------------|----------------|-------|-----------------------------------|---------------|
| KC-IP4492 | Calcium(Ca)    | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP4789 | Cerium(Ce)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP1633 | Chromium(Cr)   | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP3157 | Cobalt(Co)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP1834 | Copper(Cu)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP7369 | Germanium(Ge)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP9019 | Indium(In)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP1096 | Iron(Fe)       | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP4447 | Lead(Pb)       | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP3934 | Magnesium(Mg)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP4327 | Manganese(Mn)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP8305 | Molybdenum(Mo) | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP4726 | Nickel(Ni)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP6682 | Niobium(Nb)    | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP3340 | Phosphorus(P)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP3751 | Potassium(K)   | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP7990 | Selenium(Se)   | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP3418 | Silicon(Si)    | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP2809 | Sodium(Na)     | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP8767 | Tin(Sn)        | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP4513 | Vanadium(V)    | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP2122 | Zinc(Zn)       | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |
| KC-IP1723 | Zirconium(Zr)  | 9.5 ~ 1 050    | μg/mL | (0.5 ~ 10) %<br>(약 95%, $k = 2$ ) | KEM-ICP001-19 |

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105. 표준용액

06. 무기물분석용 표준용액

| CRM 코드    | 물질명                                                     | 인증값 또는<br>인증범위                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 단위    | 불확도<br>(신뢰수준 약 95 %, $k=2$ )      | 측정방법           |
|-----------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------|----------------|
| KC-IM2113 | Spectrometric oil<br>standard(D19)<br>(Lubricating oil) | Aluminum(Al)<br>:(2 ~ 120)<br>Barium(Ba)<br>:(2 ~ 120)<br>Boron(B)<br>:(2 ~ 120)<br>Chromium(Cr)<br>:(2 ~ 120)<br>Copper(Cu)<br>:(2 ~ 120)<br>Iron(Fe)<br>:(2 ~ 120)<br>Lead(Pb)<br>:(2 ~ 120)<br>Magnesium(Mg)<br>:(2 ~ 120)<br>Manganese(Mn)<br>:(2 ~ 120)<br>Molybdenum<br>(Mo):(2 ~ 120)<br>Nickel(Ni)<br>:(2 ~ 120)<br>Silicon(Si)<br>:(2 ~ 120)<br>Silver(Ag)<br>:(2 ~ 120)<br>Sodium(Na)<br>:(2 ~ 120)<br>Tin(Sn)<br>:(2 ~ 120)<br>Titanium(Ti)<br>:(2 ~ 120)<br>Vanadium(V)<br>:(2 ~ 120)<br>Zinc(Zn)<br>:(2 ~ 120) | mg/kg | (0.5 ~ 20) %<br>(약 95%, $k = 2$ ) | ASTM D5185-18  |
|           |                                                         | Cadmium(Cd)<br>:(2 ~ 120)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                                   | EPA 3040A:1996 |

끝.