



Agilent Technologies

Kit Name: IntelliQuant Calibration Kit

Kit PN: 5191-3932

Kit Components

| Component Part Number | Component Name | Volume or mass/ container | No. of component containers/ kit |
|-----------------------|--------------------------------------------------|---------------------------|----------------------------------|
| 5191-3933 | IntelliQuant Multi-Element Standard 1 | 100 mL | 1 |
| 5191-3934 | IntelliQuant Multi-Element Standard 2 | 100 mL | 1 |
| 5191-3935 | IntelliQuant Multi-Element Standard 3 | 100 mL | 1 |
| 5191-3936 | IntelliQuant Multi-Element Standard 4 | 100 mL | 1 |
| 5191-3937 | IntelliQuant Multi-Element Standard 5 | 100 mL | 1 |
| 5191-3938 | IntelliQuant Multi-Element Standard 6 | 100 mL | 1 |
| 5191-3939 | IntelliQuant Multi-Element Standard 7 | 100 mL | 1 |
| 5190-7001 | Calibration blank solution 5pct HNO ₃ | 500 mL | 1 |

SDSs for each component follow this cover sheet.

Transportation Information

| DOT | IATA/ICAO | China |
|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| UN3264, Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid, Hydrochloric Acid, Hydrofluoric Acid), 8, II. | UN3264, Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid, Hydrochloric Acid, Hydrofluoric Acid), 8, II. | UN3264, Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid, Hydrochloric Acid, Hydrofluoric Acid), 8, II. |

Safety Data Sheet
according to HPR, Schedule 1

Printing date 10/27/2021

Reviewed on 10/27/2021

1 Identification· **Product identifier**· **Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]**· **Part number:** 5191-3933· **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use· **Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051
USA

Tel: 800-227-9770

· **Information department:** e-mail: pdl-msds_author@agilent.com· **Emergency telephone number:** CHEMTREC®: 1-800-424-9300**2 Hazard identification**· **Classification of the substance or mixture**

GHS05 Corrosion

Corrosive to Metals - Category 1 H290 May be corrosive to metals.

Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

· **Label elements**· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

GHS05

· **Signal word** Danger· **Hazard-determining components of labeling:**

nitric acid

· **Hazard statements**

H290 May be corrosive to metals.

H315 Causes skin irritation.

H318 Causes serious eye damage.

· **Precautionary statements**

P234 Keep only in original packaging.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Safety Data Sheet

according to HPR, Schedule 1

Printing date 10/27/2021

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Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

(Contd. of page 1)

P310 *Immediately call a poison center/doctor.*
 P321 *Specific treatment (see on this label).*
 P332+P313 *If skin irritation occurs: Get medical advice/attention.*

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Aqueous solution.
Also contains substances at levels not considered to be hazardous.

- **Dangerous components:**

| | | |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CAS: 7697-37-2 RTECS: QU5775000 | nitric acid ⚠ Oxidizing Liquids – Category 3, H272; ⚠ Acute Toxicity (Inhalation) - Category 3, H331; ⚠ Corrosive to Metals - Category 1, H290; Skin Corrosion - Category 1A, H314 | >1-≤5% w/w |
| CAS: 7439-92-1 RTECS: OF 7525000 | Lead ⚠ Carcinogenicity – Category 2, H351; Reproductive Toxicity - Category 1A, H360; Specific Target Organ Toxicity - Repeated Exposure - Category 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 | <0.1% w/w |

Actual concentration ranges are withheld as a trade secret.

- **Additional information:**
The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Rinse mouth. Do not induce vomiting.

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Safety Data Sheet according to HPR, Schedule 1

Printing date 10/27/2021

Reviewed on 10/27/2021

Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

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- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Absorb liquid components with liquid-binding material.
DO NOT USE SAWDUST.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

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according to HPR, Schedule 1

Printing date 10/27/2021

Reviewed on 10/27/2021

Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

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8 Exposure controls/ Personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

CAS: 7697-37-2 nitric acid

EL STEL: 4 ppm

TWA: 2 ppm

EV STEL: 10 mg/m³, 4 ppm

TWA: 5 mg/m³, 2 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

Not required.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

· **Material of gloves**

PVC gloves

Neoprene gloves

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

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Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

| | |
|--------------------------|-----------------|
| · Form: | Liquid |
| · Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |

· **pH-value:** < 2

· **Change in condition**

| | |
|---------------------------------------|-----------------|
| · Melting point/Melting range: | Not determined. |
| · Boiling point/Boiling range: | Not determined. |

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:** Not determined

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

| | |
|-----------------|-----------------|
| · Lower: | Not determined. |
| · Upper: | Not determined. |

· **Vapor pressure:** Not determined.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

| | |
|---------------------|-----------------|
| · Dynamic: | Not determined. |
| · Kinematic: | Not determined. |

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity**

Stable under normal conditions.

No further relevant information available.

· **Chemical stability** Stable under normal conditions.

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Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

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- **Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Heat.
- **Incompatible materials:**
Strong oxidizing agents.
Metals.
- **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

| | | |
|--------------------------------------|----------|-----------------------|
| CAS: 7697-37-2 nitric acid | | |
| Inhalative | LC50/4 h | 2.65 mg/l (rat) |
| CAS: 7440-22-4 Silver, powder | | |
| Oral | LD50 | >10,000 mg/kg (mouse) |

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:**

Strong irritant with the danger of severe eye injury.

Causes serious eye damage.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

| | | |
|----------------|----------|----|
| CAS: 7439-92-1 | Lead | 2B |
| CAS: 7440-38-2 | Arsenic | I |
| CAS: 7440-47-3 | Chromium | 3 |

- **NTP (National Toxicology Program)**

| | | |
|----------------|---------|---|
| CAS: 7439-92-1 | Lead | R |
| CAS: 7440-38-2 | Arsenic | K |

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

| | |
|-----------------------------------|-----------------------|
| CAS: 7697-37-2 nitric acid | |
| LC50/48 | 180 mg/l (crustacean) |

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Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

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CAS: 7440-22-4 Silver, powder

| | |
|-----------|-------------------------|
| LC50/24 | 0.015 mg/L (crustacean) |
| EC50/72h | 0.00198 mg/l (Algae) |
| LC50/96 h | 0.00807 mg/l (fish) |

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Dispose in accordance with national regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT/TDG, ADR, IMDG, IATA** UN3264
- **DOT/TDG** Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)
- **ADR** 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**



- **Class** 8 Corrosive substances

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Reviewed on 10/27/2021

Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

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| | |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| · Label | 8 |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 8 Corrosive substances |
| · Label | 8 |
| · Packing group | |
| · DOT/TDG, ADR, IMDG, IATA | III |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Corrosive substances |
| · Hazard identification number (Kemler code): | 80 |
| · EMS Number: | F-A,S-B |
| · Segregation groups | Acids |
| · Stowage Category | A |
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | |
| | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III |

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

· **Section 313 (Specific toxic chemical listings):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|------|
| CAS: 7439-92-1 | Lead |
|----------------|------|

| | |
|----------------|-----------|
| CAS: 7439-96-5 | Manganese |
|----------------|-----------|

| | |
|----------------|----------------|
| CAS: 7440-22-4 | Silver, powder |
|----------------|----------------|

| | |
|----------------|---------|
| CAS: 7440-38-2 | Arsenic |
|----------------|---------|

| | |
|----------------|----------|
| CAS: 7440-47-3 | Chromium |
|----------------|----------|

| | |
|----------------|-----------------|
| CAS: 7664-38-2 | Phosphoric acid |
|----------------|-----------------|

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Safety Data Sheet

according to HPR, Schedule 1

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Reviewed on 10/27/2021

Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

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· TSCA (Toxic Substances Control Act):

| | | |
|-----------------|-----------------------|--------|
| CAS: 7732-18-5 | Water | ACTIVE |
| CAS: 7697-37-2 | nitric acid | ACTIVE |
| CAS: 584-09-8 | Rubidium carbonate | ACTIVE |
| CAS: 1314-36-9 | Yttrium oxide | ACTIVE |
| CAS: 1314-37-0 | Ytterbium (III) oxide | ACTIVE |
| CAS: 7439-92-1 | Lead | ACTIVE |
| CAS: 7439-96-5 | Manganese | ACTIVE |
| CAS: 7440-22-4 | Silver, powder | ACTIVE |
| CAS: 7440-38-2 | Arsenic | ACTIVE |
| CAS: 7440-47-3 | Chromium | ACTIVE |
| CAS: 7664-38-2 | Phosphoric acid | ACTIVE |
| CAS: 12036-44-1 | Thulium oxide | ACTIVE |
| CAS: 12061-16-4 | Dierbium trioxide | ACTIVE |

· Canadian substance listings:
· Canadian Domestic Substances List (DSL)

| | |
|-----------------|-----------------------|
| CAS: 7732-18-5 | Water |
| CAS: 7697-37-2 | nitric acid |
| CAS: 1314-36-9 | Yttrium oxide |
| CAS: 1314-37-0 | Ytterbium (III) oxide |
| CAS: 7439-92-1 | Lead |
| CAS: 7439-96-5 | Manganese |
| CAS: 7440-22-4 | Silver, powder |
| CAS: 7440-38-2 | Arsenic |
| CAS: 7440-47-3 | Chromium |
| CAS: 7664-38-2 | Phosphoric acid |
| CAS: 12036-44-1 | Thulium oxide |
| CAS: 12061-16-4 | Dierbium trioxide |

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

· Hazard pictograms


GHS05

· Signal word Danger
· Hazard-determining components of labeling:

nitric acid

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Safety Data Sheet
according to HPR, Schedule 1

Printing date 10/27/2021

Reviewed on 10/27/2021

Product name: IntelliQuant Multi-Element Standard 1 [100mL bottle]

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· Hazard statements*H290 May be corrosive to metals.**H315 Causes skin irritation.**H318 Causes serious eye damage.***· Precautionary statements***P234 Keep only in original packaging.**P280 Wear protective gloves/protective clothing/eye protection/face protection.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P310 Immediately call a poison center/doctor.**P321 Specific treatment (see on this label).**P332+P313 If skin irritation occurs: Get medical advice/attention.***· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other information**

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· Contact:**· Date of the latest revision of the safety data sheet** 10/27/2021 / -**· Abbreviations and acronyms:***IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative***· Sources**

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

· Data compared to the previous version altered. All sections have been updated.

Safety Data Sheet
according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

1 Identification

- **Product identifier**
- **Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]**
- **Part number:** 5191-3934
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Agilent Technologies, Inc. Tel: 800-227-9770
5301 Stevens Creek Blvd
Santa Clara, CA 95051
USA
- **Information department:** e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Corrosive to Metals - Category 1 H290 May be corrosive to metals.
Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2 H315 Causes skin irritation.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**
nitric acid
- **Hazard statements**
H290 May be corrosive to metals.
H315 Causes skin irritation.
H318 Causes serious eye damage.
- **Precautionary statements**
P234 Keep only in original packaging.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

(Contd. of page 1)

P310 *Immediately call a poison center/doctor.*
 P321 *Specific treatment (see on this label).*
 P332+P313 *If skin irritation occurs: Get medical advice/attention.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients




· **Chemical characterization: Mixtures**

· **Description:**

Aqueous solution.

Also contains substances at levels not considered to be hazardous.

· **Dangerous components:**

| | | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CAS: 7697-37-2 | nitric acid | >1-≤5% w/w |
| RTECS: QUS775000 |  Oxidizing Liquids – Category 3, H272;  Acute Toxicity (Inhalation) - Category 3, H331;  Corrosive to Metals - Category 1, H290; Skin Corrosion - Category 1A, H314 | |

Actual concentration ranges are withheld as a trade secret.

· **Additional information:**

The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

4 First-aid measures

· **Description of first aid measures**

· **General information:** *Immediately remove any clothing soiled by the product.*

· **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

· **After swallowing:** *Rinse mouth. Do not induce vomiting.*

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

CA

(Contd. on page 3)

Safety Data Sheet
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Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Absorb liquid components with liquid-binding material.
DO NOT USE SAWDUST.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 4)

CA

Safety Data Sheet

according to HPR, Schedule 1

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Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

(Contd. of page 3)

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 7697-37-2 nitric acid

| | |
|----|------------------------------------|
| EL | STEL: 4 ppm |
| | TWA: 2 ppm |
| EV | STEL: 10 mg/m ³ , 4 ppm |
| | TWA: 5 mg/m ³ , 2 ppm |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Not required.

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**

PVC gloves

Neoprene gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Liquid

(Contd. on page 5)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

(Contd. of page 4)

| | |
|---------------------------------------------------|--------------------------------------------|
| Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |
| · pH-value: | < 2 |
| · Change in condition | |
| Melting point/Melting range: | Not determined. Not determined. |
| Boiling point/Boiling range: | Not determined. |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not determined. |
| · Ignition temperature: | Not determined |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Not determined. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not determined. |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- Reactivity**
Stable under normal conditions.
No further relevant information available.
- Chemical stability** Stable under normal conditions.
- Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- Possibility of hazardous reactions** No dangerous reactions known.
- Conditions to avoid Heat.**
- Incompatible materials:**
Strong oxidizing agents.

(Contd. on page 6)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

(Contd. of page 5)

Metals.

- **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

| | | |
|----------------------------|----------|-----------------|
| CAS: 7697-37-2 nitric acid | | |
| Inhalative | LC50/4 h | 2.65 mg/l (rat) |

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:**

Strong irritant with the danger of severe eye injury.

Causes serious eye damage.

- **Sensitization:**

Based on available data, the classification criteria are not met.

No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

| | | |
|----------------|--------|----|
| CAS: 7440-02-0 | nickel | 2B |
|----------------|--------|----|

- **NTP (National Toxicology Program)**

| | | |
|----------------|--------|---|
| CAS: 7440-02-0 | nickel | R |
|----------------|--------|---|

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

| | | |
|----------------------------|-----------------------|--|
| CAS: 7697-37-2 nitric acid | | |
| LC50/48 | 180 mg/l (crustacean) | |

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

(Contd. on page 7)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

(Contd. of page 6)

- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Dispose in accordance with national regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number** UN3264
- **DOT/TDG, ADR, IMDG, IATA** Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)
- **DOT/TDG** 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
- **ADR** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**



- **Class** 8 Corrosive substances
- **Label** 8

- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances
- **Label** 8

- **Packing group** III
- **DOT/TDG, ADR, IMDG, IATA** III

- **Environmental hazards:** Not applicable.

- **Special precautions for user** Warning: Corrosive substances
- **Hazard identification number (Kemler code):** 80
- **EMS Number:** F-A,S-B
- **Segregation groups** Acids
- **Stowage Category** A

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Safety Data Sheet

according to HPR, Schedule 1

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Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

(Contd. of page 7)

| | |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III |

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|-----------------|-----------|
| CAS: 13494-80-9 | tellurium |
|-----------------|-----------|

· **Section 313 (Specific toxic chemical listings):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|--------|
| CAS: 7440-02-0 | nickel |
|----------------|--------|

| | |
|----------------|------------------|
| CAS: 7783-20-2 | Ammonium sulfate |
|----------------|------------------|

| | |
|-----------------|---------------------------------|
| CAS: 10294-41-4 | Cerium(III) nitrate hexahydrate |
|-----------------|---------------------------------|

· **TSCA (Toxic Substances Control Act):**

| | | |
|----------------|-------|--------|
| CAS: 7732-18-5 | Water | ACTIVE |
|----------------|-------|--------|

| | | |
|----------------|-------------|--------|
| CAS: 7697-37-2 | nitric acid | ACTIVE |
|----------------|-------------|--------|

| | | |
|----------------|---------------------|--------|
| CAS: 1308-96-9 | Europium(III) oxide | ACTIVE |
|----------------|---------------------|--------|

| | | |
|----------------|-----------------|--------|
| CAS: 1312-81-8 | Lanthanum oxide | ACTIVE |
|----------------|-----------------|--------|

| | | |
|----------------|--------|--------|
| CAS: 7440-02-0 | nickel | ACTIVE |
|----------------|--------|--------|

| | | |
|----------------|------------------|--------|
| CAS: 7783-20-2 | Ammonium sulfate | ACTIVE |
|----------------|------------------|--------|

| | | |
|-----------------|---------------|--------|
| CAS: 12055-62-8 | Holmium oxide | ACTIVE |
|-----------------|---------------|--------|

| | | |
|-----------------|-----------------------|--------|
| CAS: 12064-62-9 | Digadolinium trioxide | ACTIVE |
|-----------------|-----------------------|--------|

| | | |
|-----------------|-----------|--------|
| CAS: 13494-80-9 | tellurium | ACTIVE |
|-----------------|-----------|--------|

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

| | |
|----------------|-------|
| CAS: 7732-18-5 | Water |
|----------------|-------|

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|---------------------|
| CAS: 1308-96-9 | Europium(III) oxide |
|----------------|---------------------|

| | |
|----------------|-----------------|
| CAS: 1312-81-8 | Lanthanum oxide |
|----------------|-----------------|

| | |
|----------------|--------|
| CAS: 7440-02-0 | nickel |
|----------------|--------|

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Safety Data Sheet

according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

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| | |
|-----------------|-----------------------|
| CAS: 7783-20-2 | Ammonium sulfate |
| CAS: 12064-62-9 | Digadolinium trioxide |
| CAS: 13494-80-9 | tellurium |

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

CAS: 7697-37-2 nitric acid

· **Hazard pictograms**



GHS05

· **Signal word Danger**

· **Hazard-determining components of labeling:**

nitric acid

· **Hazard statements**

H290 May be corrosive to metals.

H315 Causes skin irritation.

H318 Causes serious eye damage.

· **Precautionary statements**

P234 Keep only in original packaging.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· **Contact:**

· **Date of the latest revision of the safety data sheet 10/29/2021 / -**

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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Safety Data Sheet
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Product name: IntelliQuant Multi-Element Standard 2 [100 mL bottle]

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· Sources

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

· Data compared to the previous version altered. All sections have been updated.

CA

Safety Data Sheet
according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

1 Identification

- **Product identifier**
- **Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]**
- **Part number:** 5191-3935
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Agilent Technologies, Inc. Tel: 800-227-9770
5301 Stevens Creek Blvd
Santa Clara, CA 95051
USA
- **Information department:** e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Corrosive to Metals - Category 1 H290 May be corrosive to metals.
Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2 H315 Causes skin irritation.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**
nitric acid
- **Hazard statements**
H290 May be corrosive to metals.
H315 Causes skin irritation.
H318 Causes serious eye damage.
- **Precautionary statements**
P234 Keep only in original packaging.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Safety Data Sheet

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Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

(Contd. of page 1)

P310 *Immediately call a poison center/doctor.*
 P321 *Specific treatment (see on this label).*
 P332+P313 *If skin irritation occurs: Get medical advice/attention.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients




· **Chemical characterization: Mixtures**

· **Description:**

Aqueous solution.

Also contains substances at levels not considered to be hazardous.

· **Dangerous components:**

| | | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CAS: 7697-37-2 | nitric acid | >1-≤5% w/w |
| RTECS: QUS775000 |  Oxidizing Liquids – Category 3, H272;  Acute Toxicity (Inhalation) - Category 3, H331;  Corrosive to Metals - Category 1, H290; Skin Corrosion - Category 1A, H314 | |

Actual concentration ranges are withheld as a trade secret.

· **Additional information:**

The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

4 First-aid measures

· **Description of first aid measures**

· **General information:** *Immediately remove any clothing soiled by the product.*

· **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

· **After swallowing:** *Rinse mouth. Do not induce vomiting.*

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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according to HPR, Schedule 1

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Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

(Contd. of page 2)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Absorb liquid components with liquid-binding material.
DO NOT USE SAWDUST.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

(Contd. of page 3)

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 7697-37-2 nitric acid

| | |
|----|------------------------------------|
| EL | STEL: 4 ppm |
| | TWA: 2 ppm |
| EV | STEL: 10 mg/m ³ , 4 ppm |
| | TWA: 5 mg/m ³ , 2 ppm |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Not required.

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**

PVC gloves

Neoprene gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Liquid

(Contd. on page 5)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

(Contd. of page 4)

| | |
|---------------------------------------------------|--------------------------------------------|
| Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |
| · pH-value: | < 2 |
| · Change in condition | |
| Melting point/Melting range: | Not determined. Not determined. |
| Boiling point/Boiling range: | Not determined. |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not determined. |
| · Ignition temperature: | Not determined |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Not determined. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not determined. |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- Reactivity**
Stable under normal conditions.
No further relevant information available.
- Chemical stability** Stable under normal conditions.
- Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- Possibility of hazardous reactions** No dangerous reactions known.
- Conditions to avoid Heat.**
- Incompatible materials:**
Strong oxidizing agents.

(Contd. on page 6)

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Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

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Metals.

· **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

CAS: 7697-37-2 nitric acid

| | | |
|------------|----------|-----------------|
| Inhalative | LC50/4 h | 2.65 mg/l (rat) |
|------------|----------|-----------------|

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:**

Strong irritant with the danger of severe eye injury.

Causes serious eye damage.

· **Sensitization:**

No sensitizing effects known.

Based on available data, the classification criteria are not met.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

| | | |
|----------------|--------------------|----|
| CAS: 1314-62-1 | vanadium pentoxide | 2B |
|----------------|--------------------|----|

| | | |
|----------------|--------|----|
| CAS: 7440-48-4 | Cobalt | 2B |
|----------------|--------|----|

· **NTP (National Toxicology Program)**

| | | |
|----------------|--------|---|
| CAS: 7440-48-4 | Cobalt | R |
|----------------|--------|---|

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

CAS: 7697-37-2 nitric acid

| | |
|---------|-----------------------|
| LC50/48 | 180 mg/l (crustacean) |
|---------|-----------------------|

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

(Contd. of page 6)

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Dispose in accordance with national regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT/TDG, ADR, IMDG, IATA** UN3264
- **DOT/TDG** Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)
- **ADR** 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**



- **Class** 8 Corrosive substances
- **Label** 8

- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances
- **Label** 8

- **Packing group**
- **DOT/TDG, ADR, IMDG, IATA** III

- **Environmental hazards:** Not applicable.

- **Special precautions for user** Warning: Corrosive substances
- **Hazard identification number (Kemler code):** 80
- **EMS Number:** F-A,S-B

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Safety Data Sheet

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Printing date 10/29/2021

Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

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| | |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| · Segregation groups | Acids |
| · Stowage Category | A |
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**

- **Section 355 (extremely hazardous substances):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|--------------------|
| CAS: 1314-62-1 | vanadium pentoxide |
|----------------|--------------------|

- **Section 313 (Specific toxic chemical listings):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|--------------------|
| CAS: 1314-62-1 | vanadium pentoxide |
|----------------|--------------------|

| | |
|----------------|--------|
| CAS: 7440-48-4 | Cobalt |
|----------------|--------|

| | |
|-----------------|----------------------|
| CAS: 13823-29-5 | Thorium tetranitrate |
|-----------------|----------------------|

- **TSCA (Toxic Substances Control Act):**

| | | |
|----------------|-------|--------|
| CAS: 7732-18-5 | Water | ACTIVE |
|----------------|-------|--------|

| | | |
|----------------|-------------|--------|
| CAS: 7697-37-2 | nitric acid | ACTIVE |
|----------------|-------------|--------|

| | | |
|----------------|-----------------------|--------|
| CAS: 1308-87-8 | Didysprosium trioxide | ACTIVE |
|----------------|-----------------------|--------|

| | | |
|----------------|--------------------|--------|
| CAS: 1314-62-1 | vanadium pentoxide | ACTIVE |
|----------------|--------------------|--------|

| | | |
|----------------|---------|--------|
| CAS: 7440-15-5 | rhenium | ACTIVE |
|----------------|---------|--------|

| | | |
|----------------|--------|--------|
| CAS: 7440-48-4 | Cobalt | ACTIVE |
|----------------|--------|--------|

| | | |
|-----------------|----------------------|--------|
| CAS: 13823-29-5 | Thorium tetranitrate | ACTIVE |
|-----------------|----------------------|--------|

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

| | |
|----------------|-------|
| CAS: 7732-18-5 | Water |
|----------------|-------|

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|---------|
| CAS: 7440-15-5 | rhenium |
|----------------|---------|

| | |
|----------------|--------|
| CAS: 7440-48-4 | Cobalt |
|----------------|--------|

| | |
|-----------------|----------------------|
| CAS: 13823-29-5 | Thorium tetranitrate |
|-----------------|----------------------|

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

(Contd. of page 8)

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

CAS: 7697-37-2 | nitric acid

· Hazard pictograms


GHS05

· Signal word Danger
· Hazard-determining components of labeling:

nitric acid

· Hazard statements

H290 May be corrosive to metals.

H315 Causes skin irritation.

H318 Causes serious eye damage.

· Precautionary statements

P234 Keep only in original packaging.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· Contact:
· Date of the latest revision of the safety data sheet 10/29/2021 / -
· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· Sources

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

(Contd. on page 10)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 10/29/2021

Reviewed on 10/29/2021

Product name: IntelliQuant Multi-Element Standard 3 [100 mL bottle]

· *Data compared to the previous version altered. All sections have been updated.*

(Contd. of page 9)

CA

Safety Data Sheet according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

1 Identification

- **Product identifier**
- **Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]**
- **Part number:** 5191-3936
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Agilent Technologies, Inc. Tel: 800-227-9770
5301 Stevens Creek Blvd
Santa Clara, CA 95051
USA
- **Information department:** e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Corrosive to Metals - Category 1 H290 May be corrosive to metals.

Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05

- **Signal word** Danger

- **Hazard-determining components of labeling:**

nitric acid

- **Hazard statements**

H290 May be corrosive to metals.

H315 Causes skin irritation.

H318 Causes serious eye damage.

- **Precautionary statements**

P234 Keep only in original packaging.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 1)




P310 *Immediately call a poison center/doctor.*
 P321 *Specific treatment (see on this label).*
 P332+P313 *If skin irritation occurs: Get medical advice/attention.*

· Classification system:
· NFPA ratings (scale 0 - 4)

· HMIS-ratings (scale 0 - 4)


3 Composition/Information on ingredients

· Chemical characterization: Mixtures
· Description:
Aqueous solution.
Also contains substances at levels not considered to be hazardous.
· Dangerous components:

| | | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CAS: 7697-37-2 | nitric acid | >1-≤5% w/w |
| RTECS: QUS775000 |  Oxidizing Liquids – Category 3, H272;  Acute Toxicity (Inhalation) - Category 3, H331;  Corrosive to Metals - Category 1, H290; Skin Corrosion - Category 1A, H314 | |

Actual concentration ranges are withheld as a trade secret.
· Additional information:
The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

4 First-aid measures

· Description of first aid measures
· General information: *Immediately remove any clothing soiled by the product.*
· After inhalation: *Supply fresh air; consult doctor in case of complaints.*
· After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· After eye contact: *Rinse opened eye for several minutes under running water. Then consult a doctor.*
· After swallowing: *Rinse mouth. Do not induce vomiting.*
· Information for doctor:
· Most important symptoms and effects, both acute and delayed *No further relevant information available.*
· Indication of any immediate medical attention and special treatment needed
No further relevant information available.

CA

(Contd. on page 3)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 2)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Absorb liquid components with liquid-binding material.
DO NOT USE SAWDUST.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 4)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 3)

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 7697-37-2 nitric acid

| | |
|----|------------------------------------|
| EL | STEL: 4 ppm |
| | TWA: 2 ppm |
| EV | STEL: 10 mg/m ³ , 4 ppm |
| | TWA: 5 mg/m ³ , 2 ppm |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Not required.

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**

PVC gloves

Neoprene gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Liquid

(Contd. on page 5)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 4)

| | |
|---------------------------------------------------|--------------------------------------------|
| Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |
| · pH-value: | < 2 |
| · Change in condition | |
| Melting point/Melting range: | Not determined. Not determined. |
| Boiling point/Boiling range: | Not determined. |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not determined. |
| · Ignition temperature: | Not determined |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Not determined. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not determined. |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- Reactivity**
Stable under normal conditions.
No further relevant information available.
- Chemical stability** Stable under normal conditions.
- Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- Possibility of hazardous reactions** No dangerous reactions known.
- Conditions to avoid Heat.**
- Incompatible materials:**
Strong oxidizing agents.

(Contd. on page 6)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 5)

Metals.

- **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

| | | |
|-----------------------------------|----------|-----------------|
| CAS: 7697-37-2 nitric acid | | |
| Inhalative | LC50/4 h | 2.65 mg/l (rat) |

| | | |
|------------|----------|-----------------|
| Inhalative | LC50/4 h | 2.65 mg/l (rat) |
|------------|----------|-----------------|

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:**

Strong irritant with the danger of severe eye injury.

Causes serious eye damage.

- **Sensitization:**

Based on available data, the classification criteria are not met.

No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

| | | |
|----------------|---------|---|
| CAS: 7439-97-6 | Mercury | 3 |
|----------------|---------|---|

| | | |
|----------------|---------|---|
| CAS: 7440-43-9 | cadmium | 1 |
|----------------|---------|---|

| | | |
|----------------|----------|---|
| CAS: 7782-49-2 | Selenium | 3 |
|----------------|----------|---|

| | | |
|-----------------|----------------------|---|
| CAS: 19049-40-2 | Beryllium Oxyacetate | 1 |
|-----------------|----------------------|---|

- **NTP (National Toxicology Program)**

| | | |
|----------------|---------|---|
| CAS: 7440-43-9 | cadmium | K |
|----------------|---------|---|

| | | |
|-----------------|----------------------|---|
| CAS: 19049-40-2 | Beryllium Oxyacetate | K |
|-----------------|----------------------|---|

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

| | | |
|-----------------------------------|-----------------------|--|
| CAS: 7697-37-2 nitric acid | | |
| LC50/48 | 180 mg/l (crustacean) | |

| | | |
|---------|-----------------------|--|
| LC50/48 | 180 mg/l (crustacean) | |
|---------|-----------------------|--|

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

(Contd. on page 7)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 6)

- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** *Dispose in accordance with national regulations.*
- **Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

14 Transport information

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> · UN-Number · DOT/TDG, ADR, IMDG, IATA · DOT/TDG · ADR · IMDG, IATA | <p>UN3264 Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid) 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID) CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**



- | | |
|------------------------------------------------------------------------------------------|-------------------------------------|
| <ul style="list-style-type: none"> · Class · Label | <p>8 Corrosive substances 8</p> |
|------------------------------------------------------------------------------------------|-------------------------------------|

- **ADR, IMDG, IATA**



- | | |
|------------------------------------------------------------------------------------------|-------------------------------------|
| <ul style="list-style-type: none"> · Class · Label | <p>8 Corrosive substances 8</p> |
|------------------------------------------------------------------------------------------|-------------------------------------|

(Contd. on page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 7)

| | |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| · Packing group | |
| · DOT/TDG, ADR, IMDG, IATA | III |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Corrosive substances |
| · Hazard identification number (Kemler code): | 80 |
| · EMS Number: | F-A,S-B |
| · Segregation groups | Acids |
| · Stowage Category | A |
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III |

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

· **Section 313 (Specific toxic chemical listings):**

| | |
|-----------------|--------------------------------------|
| CAS: 7697-37-2 | nitric acid |
| CAS: 554-13-2 | Lithium carbonate |
| CAS: 7439-97-6 | Mercury |
| CAS: 7440-28-0 | thallium |
| CAS: 7440-43-9 | cadmium |
| CAS: 7440-50-8 | Copper |
| CAS: 7440-66-6 | zinc powder - zinc dust (stabilised) |
| CAS: 7757-79-1 | Potassium nitrate |
| CAS: 7782-49-2 | Selenium |
| CAS: 10022-31-8 | Barium nitrate |
| CAS: 10042-76-9 | Strontium nitrate |
| CAS: 13446-18-9 | Magnesium nitrate hexahydrate |
| CAS: 19049-40-2 | Beryllium Oxyacetate |

(Contd. on page 9)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 8)

| · TSCA (Toxic Substances Control Act): | | |
|-----------------------------------------------|--------------------------------------|--------|
| CAS: 7732-18-5 | Water | ACTIVE |
| CAS: 7697-37-2 | nitric acid | ACTIVE |
| CAS: 471-34-1 | Calcium carbonate | ACTIVE |
| CAS: 497-19-8 | Sodium carbonate | ACTIVE |
| CAS: 534-17-8 | caesium carbonate | ACTIVE |
| CAS: 554-13-2 | Lithium carbonate | ACTIVE |
| CAS: 7439-97-6 | Mercury | ACTIVE |
| CAS: 7440-28-0 | thallium | ACTIVE |
| CAS: 7440-43-9 | cadmium | ACTIVE |
| CAS: 7440-50-8 | Copper | ACTIVE |
| CAS: 7440-55-3 | Gallium | ACTIVE |
| CAS: 7440-66-6 | zinc powder - zinc dust (stabilised) | ACTIVE |
| CAS: 7440-69-9 | Bismuth | ACTIVE |
| CAS: 7440-74-6 | Indium | ACTIVE |
| CAS: 7757-79-1 | Potassium nitrate | ACTIVE |
| CAS: 7782-49-2 | Selenium | ACTIVE |
| CAS: 10022-31-8 | Barium nitrate | ACTIVE |
| CAS: 10042-76-9 | Strontium nitrate | ACTIVE |
| CAS: 10043-35-3 | Boric acid | ACTIVE |

· Canadian substance listings:

| · Canadian Domestic Substances List (DSL) | | |
|--------------------------------------------------|--------------------------------------|--|
| CAS: 7732-18-5 | Water | |
| CAS: 7697-37-2 | nitric acid | |
| CAS: 471-34-1 | Calcium carbonate | |
| CAS: 497-19-8 | Sodium carbonate | |
| CAS: 534-17-8 | caesium carbonate | |
| CAS: 554-13-2 | Lithium carbonate | |
| CAS: 7439-97-6 | Mercury | |
| CAS: 7440-28-0 | thallium | |
| CAS: 7440-43-9 | cadmium | |
| CAS: 7440-50-8 | Copper | |
| CAS: 7440-55-3 | Gallium | |
| CAS: 7440-66-6 | zinc powder - zinc dust (stabilised) | |
| CAS: 7440-69-9 | Bismuth | |
| CAS: 7440-74-6 | Indium | |
| CAS: 7757-79-1 | Potassium nitrate | |
| CAS: 7782-49-2 | Selenium | |
| CAS: 10022-31-8 | Barium nitrate | |
| CAS: 10042-76-9 | Strontium nitrate | |
| CAS: 10043-35-3 | Boric acid | |

(Contd. on page 10)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]

(Contd. of page 9)

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

CAS: 7697-37-2 | nitric acid

· Hazard pictograms


GHS05

· Signal word Danger
· Hazard-determining components of labeling:

nitric acid

· Hazard statements

H290 May be corrosive to metals.

H315 Causes skin irritation.

H318 Causes serious eye damage.

· Precautionary statements

P234 Keep only in original packaging.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· Contact:
· Date of the latest revision of the safety data sheet 11/02/2021 / -
· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· Sources

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

(Contd. on page 11)

Safety Data Sheet
*according to HPR, Schedule 1**Printing date 11/02/2021**Reviewed on 11/02/2021***Product name: IntelliQuant Multi-Element Standard 4 [100 mL bottle]***· **Data compared to the previous version altered.** All sections have been updated.*

(Contd. of page 10)

CA

Safety Data Sheet
according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

1 Identification

- **Product identifier**
- **Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]**
- **Part number:** 5191-3937
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Agilent Technologies, Inc. Tel: 800-227-9770
5301 Stevens Creek Blvd
Santa Clara, CA 95051
USA
- **Information department:** e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Corrosive to Metals - Category 1 H290 May be corrosive to metals.
Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2 H315 Causes skin irritation.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**
nitric acid
- **Hazard statements**
H290 May be corrosive to metals.
H315 Causes skin irritation.
H318 Causes serious eye damage.
- **Precautionary statements**
P234 Keep only in original packaging.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]

(Contd. of page 1)

P310 *Immediately call a poison center/doctor.*
 P321 *Specific treatment (see on this label).*
 P332+P313 *If skin irritation occurs: Get medical advice/attention.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients




· **Chemical characterization: Mixtures**

· **Description:**

Aqueous solution.

Also contains substances at levels not considered to be hazardous.

· **Dangerous components:**

| | | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CAS: 7697-37-2 | nitric acid | >1-≤5% w/w |
| RTECS: QUS775000 |  Oxidizing Liquids – Category 3, H272;  Acute Toxicity (Inhalation) - Category 3, H331;  Corrosive to Metals - Category 1, H290; Skin Corrosion - Category 1A, H314 | |

Actual concentration ranges are withheld as a trade secret.

· **Additional information:**

The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

4 First-aid measures

· **Description of first aid measures**

· **General information:** *Immediately remove any clothing soiled by the product.*

· **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

· **After swallowing:** *Rinse mouth. Do not induce vomiting.*

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

CA

(Contd. on page 3)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]

(Contd. of page 2)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Absorb liquid components with liquid-binding material.
DO NOT USE SAWDUST.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 4)

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Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]

(Contd. of page 3)

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 7697-37-2 nitric acid

| | |
|----|------------------------------------|
| EL | STEL: 4 ppm |
| | TWA: 2 ppm |
| EV | STEL: 10 mg/m ³ , 4 ppm |
| | TWA: 5 mg/m ³ , 2 ppm |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Not required.

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**

PVC gloves

Neoprene gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Liquid

(Contd. on page 5)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]

(Contd. of page 4)

| | |
|---------------------------------------------------|--------------------------------------------|
| Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |
| · pH-value: | < 2 |
| · Change in condition | |
| Melting point/Melting range: | Not determined. Not determined. |
| Boiling point/Boiling range: | Not determined. |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not determined. |
| · Ignition temperature: | Not determined |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Not determined. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not determined. |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity**
Stable under normal conditions.
No further relevant information available.
- **Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid Heat.**
- **Incompatible materials:**
Strong oxidizing agents.

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Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]

(Contd. of page 5)

Metals.

- **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

CAS: 7697-37-2 nitric acid

| | | |
|------------|----------|-----------------|
| Inhalative | LC50/4 h | 2.65 mg/l (rat) |
|------------|----------|-----------------|

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:**

Strong irritant with the danger of severe eye injury.

Causes serious eye damage.

- **Sensitization:**

Based on available data, the classification criteria are not met.

No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

CAS: 7697-37-2 nitric acid

| | |
|---------|-----------------------|
| LC50/48 | 180 mg/l (crustacean) |
|---------|-----------------------|

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

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CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]

(Contd. of page 6)

- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Dispose in accordance with national regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT/TDG, ADR, IMDG, IATA** UN3264
- **DOT/TDG** Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)
- **ADR** 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**



- **Class** 8 Corrosive substances
- **Label** 8

- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances
- **Label** 8

- **Packing group**
- **DOT/TDG, ADR, IMDG, IATA** III

- **Environmental hazards:** Not applicable.

- **Special precautions for user** Warning: Corrosive substances
- **Hazard identification number (Kemler code):** 80
- **EMS Number:** F-A,S-B
- **Segregation groups** Acids
- **Stowage Category** A

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]

(Contd. of page 7)

| | |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III |

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

· **Section 313 (Specific toxic chemical listings):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|-------------------------------|
| CAS: 7784-27-2 | Aluminium nitrate nonahydrate |
|----------------|-------------------------------|

· **TSCA (Toxic Substances Control Act):**

| | | |
|----------------|-------|--------|
| CAS: 7732-18-5 | Water | ACTIVE |
|----------------|-------|--------|

| | | |
|----------------|-------------|--------|
| CAS: 7697-37-2 | nitric acid | ACTIVE |
|----------------|-------------|--------|

| | | |
|----------------|-----------------|--------|
| CAS: 1313-97-9 | neodymium oxide | ACTIVE |
|----------------|-----------------|--------|

| | | |
|-----------------|----------------|--------|
| CAS: 10421-48-4 | ferric nitrate | ACTIVE |
|-----------------|----------------|--------|

| | | |
|-----------------|-------------------------|--------|
| CAS: 12037-01-3 | Tetraterbium heptaoxide | ACTIVE |
|-----------------|-------------------------|--------|

| | | |
|-----------------|--------------------|--------|
| CAS: 12037-29-5 | Praseodymium oxide | ACTIVE |
|-----------------|--------------------|--------|

| | | |
|-----------------|------------------------|--------|
| CAS: 13106-76-8 | Ammonium molybdate(VI) | ACTIVE |
|-----------------|------------------------|--------|

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

| | |
|----------------|-------|
| CAS: 7732-18-5 | Water |
|----------------|-------|

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|-----------------|
| CAS: 1313-97-9 | neodymium oxide |
|----------------|-----------------|

| | |
|-----------------|----------------|
| CAS: 10421-48-4 | ferric nitrate |
|-----------------|----------------|

| | |
|-----------------|--------------------|
| CAS: 12037-29-5 | Praseodymium oxide |
|-----------------|--------------------|

| | |
|-----------------|------------------------|
| CAS: 13106-76-8 | Ammonium molybdate(VI) |
|-----------------|------------------------|

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

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Safety Data Sheet according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 5 [100 mL bottle]

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· Hazard pictograms

GHS05

· Signal word *Danger***· Hazard-determining components of labeling:***nitric acid***· Hazard statements***H290 May be corrosive to metals.**H315 Causes skin irritation.**H318 Causes serious eye damage.***· Precautionary statements***P234 Keep only in original packaging.**P280 Wear protective gloves/protective clothing/eye protection/face protection.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P310 Immediately call a poison center/doctor.**P321 Specific treatment (see on this label).**P332+P313 If skin irritation occurs: Get medical advice/attention.***· Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***16 Other information**

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· Contact:**· Date of the latest revision of the safety data sheet** *11/02/2021 / -***· Abbreviations and acronyms:***IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative***· Sources**

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

· Data compared to the previous version altered. *All sections have been updated.*

Safety Data Sheet
according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

1 Identification· **Product identifier**· **Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]**· **Part number:** 5191-3938· **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use· **Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051
USA

Tel: 800-227-9770

· **Information department:** e-mail: pdl-msds_author@agilent.com· **Emergency telephone number:** CHEMTREC®: 1-800-424-9300**2 Hazard identification**· **Classification of the substance or mixture**

GHS05 Corrosion

Corrosive to Metals - Category 1 H290 May be corrosive to metals.

Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

· **Label elements**· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

GHS05

· **Signal word** Danger· **Hazard-determining components of labeling:**

nitric acid

· **Hazard statements**

H290 May be corrosive to metals.

H315 Causes skin irritation.

H318 Causes serious eye damage.

· **Precautionary statements**

P234 Keep only in original packaging.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

(Contd. of page 1)

P310 *Immediately call a poison center/doctor.*
 P321 *Specific treatment (see on this label).*
 P332+P313 *If skin irritation occurs: Get medical advice/attention.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients




· **Chemical characterization: Mixtures**

· **Description:**

Aqueous solution.

Also contains substances at levels not considered to be hazardous.

· **Dangerous components:**

| | | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CAS: 7697-37-2 | nitric acid | >1-≤5% w/w |
| RTECS: QUS775000 |  Oxidizing Liquids – Category 3, H272;  Acute Toxicity (Inhalation) - Category 3, H331;  Corrosive to Metals - Category 1, H290; Skin Corrosion - Category 1A, H314 | |

Actual concentration ranges are withheld as a trade secret.

· **Additional information:**

The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

4 First-aid measures

· **Description of first aid measures**

· **General information:** *Immediately remove any clothing soiled by the product.*

· **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

· **After swallowing:** *Rinse mouth. Do not induce vomiting.*

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

CA

(Contd. on page 3)

Safety Data Sheet according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

(Contd. of page 2)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Absorb liquid components with liquid-binding material.
DO NOT USE SAWDUST.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 4)

-CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

(Contd. of page 3)

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 7697-37-2 nitric acid

| | |
|----|------------------------------------|
| EL | STEL: 4 ppm |
| | TWA: 2 ppm |
| EV | STEL: 10 mg/m ³ , 4 ppm |
| | TWA: 5 mg/m ³ , 2 ppm |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Not required.

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**

PVC gloves

Neoprene gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Liquid

(Contd. on page 5)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

(Contd. of page 4)

| | |
|---------------------------------------------------|--------------------------------------------|
| Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |
| · pH-value: | < 2 |
| · Change in condition | |
| Melting point/Melting range: | Not determined. Not determined. |
| Boiling point/Boiling range: | Not determined. |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not determined. |
| · Ignition temperature: | Not determined |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Not determined. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not determined. |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- Reactivity**
Stable under normal conditions.
No further relevant information available.
- Chemical stability** Stable under normal conditions.
- Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- Possibility of hazardous reactions** No dangerous reactions known.
- Conditions to avoid Heat.**
- Incompatible materials:**
Strong oxidizing agents.

(Contd. on page 6)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

(Contd. of page 5)

Metals.

- **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

| | | |
|-----------------------------------|----------|-----------------|
| CAS: 7697-37-2 nitric acid | | |
| Inhalative | LC50/4 h | 2.65 mg/l (rat) |

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:**

Strong irritant with the danger of severe eye injury.

Causes serious eye damage.

- **Sensitization:**

Based on available data, the classification criteria are not met.

No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

| | | |
|-----------------------------------|----------|--------------|
| CAS: 7697-37-2 nitric acid | | |
| LC50/48 | 180 mg/l | (crustacean) |

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

(Contd. on page 7)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

(Contd. of page 6)

- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Dispose in accordance with national regulations.

14 Transport information

- **UN-Number**
- **DOT/TDG, ADR, IMDG, IATA** UN3264
- **DOT/TDG** Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid, Hydrofluoric acid)
- **ADR** 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, HYDROFLUORIC ACID)
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, HYDROFLUORIC ACID)

- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**



- **Class** 8 Corrosive substances
- **Label** 8

- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances
- **Label** 8

- **Packing group**
- **DOT/TDG, ADR, IMDG, IATA** III

- **Environmental hazards:** Not applicable.

- **Special precautions for user** Warning: Corrosive substances
- **Hazard identification number (Kemler code):** 80
- **EMS Number:** F-A,S-B
- **Segregation groups** Acids
- **Stowage Category** A

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

(Contd. of page 7)

| | |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, HYDROFLUORIC ACID), 8, III |

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|-------------------|
| CAS: 7664-39-3 | hydrofluoric acid |
|----------------|-------------------|

· **Section 313 (Specific toxic chemical listings):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|-------------------|
| CAS: 7664-39-3 | hydrofluoric acid |
|----------------|-------------------|

| | |
|----------------|----------|
| CAS: 7440-36-0 | Antimony |
|----------------|----------|

· **TSCA (Toxic Substances Control Act):**

| | | |
|----------------|-------|--------|
| CAS: 7732-18-5 | Water | ACTIVE |
|----------------|-------|--------|

| | | |
|----------------|-------------|--------|
| CAS: 7697-37-2 | nitric acid | ACTIVE |
|----------------|-------------|--------|

| | | |
|----------------|-------------------|--------|
| CAS: 7664-39-3 | hydrofluoric acid | ACTIVE |
|----------------|-------------------|--------|

| | | |
|----------------|-----|--------|
| CAS: 7440-31-5 | Tin | ACTIVE |
|----------------|-----|--------|

| | | |
|----------------|----------|--------|
| CAS: 7440-32-6 | Titanium | ACTIVE |
|----------------|----------|--------|

| | | |
|----------------|----------|--------|
| CAS: 7440-33-7 | Tungsten | ACTIVE |
|----------------|----------|--------|

| | | |
|----------------|----------|--------|
| CAS: 7440-36-0 | Antimony | ACTIVE |
|----------------|----------|--------|

| | | |
|----------------|-----------|--------|
| CAS: 7440-56-4 | Germanium | ACTIVE |
|----------------|-----------|--------|

| | | |
|----------------|---------|--------|
| CAS: 7440-58-6 | hafnium | ACTIVE |
|----------------|---------|--------|

| | | |
|----------------|------------------------|--------|
| CAS: 7721-01-9 | Tantalum pentachloride | ACTIVE |
|----------------|------------------------|--------|

| | | |
|-----------------|-----------------------|--------|
| CAS: 10026-12-7 | niobium pentachloride | ACTIVE |
|-----------------|-----------------------|--------|

| | | |
|-----------------|-------------------------|--------|
| CAS: 16919-19-0 | Ammonium silicofluoride | ACTIVE |
|-----------------|-------------------------|--------|

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

| | |
|----------------|-------|
| CAS: 7732-18-5 | Water |
|----------------|-------|

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

| | |
|----------------|-------------------|
| CAS: 7664-39-3 | hydrofluoric acid |
|----------------|-------------------|

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Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

(Contd. of page 8)

| | |
|-----------------|-------------------------|
| CAS: 7440-31-5 | Tin |
| CAS: 7440-32-6 | Titanium |
| CAS: 7440-33-7 | Tungsten |
| CAS: 7440-36-0 | Antimony |
| CAS: 7440-58-6 | hafnium |
| CAS: 7721-01-9 | Tantalum pentachloride |
| CAS: 16919-19-0 | Ammonium silicofluoride |

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

CAS: 7697-37-2 | nitric acid

· **Hazard pictograms**



GHS05

· **Signal word** Danger

· **Hazard-determining components of labeling:**

nitric acid

· **Hazard statements**

H290 May be corrosive to metals.

H315 Causes skin irritation.

H318 Causes serious eye damage.

· **Precautionary statements**

P234 Keep only in original packaging.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· **Contact:**

· **Date of the latest revision of the safety data sheet** 11/02/2021 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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Safety Data Sheet
according to HPR, Schedule 1

Printing date 11/02/2021

Reviewed on 11/02/2021

Product name: IntelliQuant Multi-Element Standard 6 [100mL Bottle]

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*NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative***· Sources***Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.*

- ***Data compared to the previous version altered.*** All sections have been updated.

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/03/2021

Reviewed on 11/03/2021

1 Identification

- **Product identifier**
- **Product name: IntelliQuant Multi-Element Standard 7 [100 mL bottle]**
- **Part number:** 5191-3939
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Agilent Technologies, Inc. Tel: 800-227-9770
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051
 USA
- **Information department:** e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard identification

- **Classification of the substance or mixture**



GHS05 Corrosion

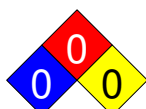
Corrosive to Metals - Category 1 H290 May be corrosive to metals.

- **Label elements**
- **GHS label elements**
 The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Warning
- **Hazard statements**
 H290 May be corrosive to metals.
- **Precautionary statements**
 P234 Keep only in original packaging.
 P390 Absorb spillage to prevent material-damage.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**


 Health = 0
 Fire = 0
 Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**


 Health = 0
 Fire = 0
 Reactivity = 0

CA

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/03/2021

Reviewed on 11/03/2021

Product name: IntelliQuant Multi-Element Standard 7 [100 mL bottle]

(Contd. of page 1)

3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Aqueous solution.
Also contains substances at levels not considered to be hazardous.

- **Dangerous components:**

| | | |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CAS: 7647-01-0 | Hydrochloric acid | >3-≤7% w/w |
| RTECS: MW 9620000 | ⚠ Skin Corrosion - Category 1B, H314; Serious Eye Damage - Category 1, H318; ⚠ Specific Target Organ Toxicity - Single Exposure - Category 3, H335 | |

Actual concentration ranges are withheld as a trade secret.

- **Additional information:**
The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Rinse mouth. Do not induce vomiting.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.

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Safety Data Sheet

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Printing date 11/03/2021

Reviewed on 11/03/2021

Product name: IntelliQuant Multi-Element Standard 7 [100 mL bottle]

(Contd. of page 2)

Dispose contaminated material as waste according to item 13.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· Handling:

· Precautions for safe handling *Store in cool, dry place in tightly closed receptacles.*

· Information about protection against explosions and fires: *No special measures required.*

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Please refer to the manufacturer's certificate for specific storage and transport temperature conditions.

Store only in the original receptacle unless other advice is given on the CoA.

Keep container in a well-ventilated place. Keep away from sources of ignition and heat.

· Information about storage in one common storage facility: *Store away from foodstuffs.*

· Further information about storage conditions: *Keep receptacle tightly sealed.*

· Specific end use(s) *No further relevant information available.*

8 Exposure controls/ Personal protection

· Additional information about design of technical systems: *No further data; see item 7.*

· Control parameters

· Components with limit values that require monitoring at the workplace:

CAS: 7647-01-0 Hydrochloric acid

| | |
|----|----------------|
| EL | Ceiling: 2 ppm |
| EV | Ceiling: 2 ppm |

· Additional information: *The lists that were valid during the creation were used as basis.*

· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

Not required.

Use suitable respiratory protective device in case of insufficient ventilation.

· Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 4)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/03/2021

Reviewed on 11/03/2021

Product name: IntelliQuant Multi-Element Standard 7 [100 mL bottle]

(Contd. of page 3)

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**

PVC gloves

Neoprene gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid

Color: Colorless

- **Odor:** Odorless

- **Odor threshold:** Not determined.

- **pH-value:** < 2

- **Change in condition**

Melting point/Melting range: Not determined.

Not determined.

Boiling point/Boiling range: Not determined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not determined.

- **Ignition temperature:** Not determined

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Not determined.

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

- **Vapor pressure:** Not determined.

- **Density:** Not determined.

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/03/2021

Reviewed on 11/03/2021

Product name: IntelliQuant Multi-Element Standard 7 [100 mL bottle]

(Contd. of page 4)

| | |
|---------------------------------------------------|---------------------------------------------------|
| · Relative density | <i>Not determined.</i> |
| · Vapor density | <i>Not determined.</i> |
| · Evaporation rate | <i>Not determined.</i> |
| · Solubility in / Miscibility with Water: | <i>Fully miscible.</i> |
| · Partition coefficient (n-octanol/water): | <i>Not determined.</i> |
| · Viscosity: | |
| Dynamic: | <i>Not determined.</i> |
| Kinematic: | <i>Not determined.</i> |
| · Other information | <i>No further relevant information available.</i> |

10 Stability and reactivity

- **Reactivity**
Stable under normal conditions.
No further relevant information available.
- **Chemical stability** *Stable under normal conditions.*
- **Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Conditions to avoid** *Heat.*
- **Incompatible materials:**
Strong oxidizing agents.
Metals.
- **Hazardous decomposition products:** *Formation of toxic gases is possible during heating or in case of fire.*

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** *Based on available data, the classification criteria are not met.*
- **on the eye:** *Based on available data, the classification criteria are not met.*
- **Sensitization:**
Based on available data, the classification criteria are not met.
No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

CAS: 7647-01-0 | Hydrochloric acid

3

(Contd. on page 6)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/03/2021

Reviewed on 11/03/2021

Product name: IntelliQuant Multi-Element Standard 7 [100 mL bottle]

(Contd. of page 5)

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Dispose in accordance with national regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|-----------------------------------|---------------------------------|
| · UN-Number | UN1789 |
| · DOT/TDG, ADR, IMDG, IATA | Hydrochloric acid solution |
| · DOT/TDG | 1789 HYDROCHLORIC ACID solution |
| · ADR | HYDROCHLORIC ACID solution |
| · IMDG, IATA | |

- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**



- **Class** 8 Corrosive substances

(Contd. on page 7)

Safety Data Sheet


according to HPR, Schedule 1

Printing date 11/03/2021

Reviewed on 11/03/2021

Product name: IntelliQuant Multi-Element Standard 7 [100 mL bottle]

(Contd. of page 6)

| | |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · Label | 8 |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 8 Corrosive substances |
| · Label | 8 |
| · Packing group | |
| · DOT/TDG, ADR, IMDG, IATA | II |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Corrosive substances |
| · Hazard identification number (Kemler code): | 80 |
| · EMS Number: | F-A,S-B |
| · Segregation groups | Acids |
| · Stowage Category | A |
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | |
| | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml |
| · UN "Model Regulation": | UN 1789 HYDROCHLORIC ACID SOLUTION, 8, II |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**

Section 355 (extremely hazardous substances):

CAS: 7647-01-0 | Hydrochloric acid

Section 313 (Specific toxic chemical listings):

CAS: 7647-01-0 | Hydrochloric acid

TSCA (Toxic Substances Control Act):

| | | |
|-----------------|-----------------------------|--------|
| CAS: 7732-18-5 | Water | ACTIVE |
| CAS: 7647-01-0 | Hydrochloric acid | ACTIVE |
| CAS: 7440-05-3 | Palladium | ACTIVE |
| CAS: 7440-06-4 | Platinum | ACTIVE |
| CAS: 7440-57-5 | Gold | ACTIVE |
| CAS: 12125-08-5 | Diammonium hexachloroosmate | ACTIVE |

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Safety Data Sheet

according to HPR, Schedule 1

Printing date 11/03/2021

Reviewed on 11/03/2021

Product name: IntelliQuant Multi-Element Standard 7 [100 mL bottle]

(Contd. of page 7)

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

| | |
|----------------|-------------------|
| CAS: 7732-18-5 | Water |
| CAS: 7647-01-0 | Hydrochloric acid |
| CAS: 7440-05-3 | Palladium |
| CAS: 7440-06-4 | Platinum |
| CAS: 7440-57-5 | Gold |

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

| | |
|----------------|-------------------|
| CAS: 7647-01-0 | Hydrochloric acid |
|----------------|-------------------|

- **Hazard pictograms**



GHS05

- **Signal word** Warning

- **Hazard statements**

H290 May be corrosive to metals.

- **Precautionary statements**

P234 Keep only in original packaging.

P390 Absorb spillage to prevent material-damage.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- **Contact:**

- **Date of the latest revision of the safety data sheet** 11/03/2021 / -

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

- **Sources**

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

- **Data compared to the previous version altered.** All sections have been updated.

Safety Data Sheet according to HPR, Schedule 1

Printing date 11/03/2021

Reviewed on 11/03/2021

1 Identification

- **Product identifier**
- **Product name: Calibration blank solution 5pct HNO₃ [500 mL bottle]**
- **Part number:** 5190-7001
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Agilent Technologies, Inc. Tel: 800-227-9770
5301 Stevens Creek Blvd
Santa Clara, CA 95051
USA
- **Information department:** e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Corrosive to Metals - Category 1 H290 May be corrosive to metals.
Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2 H315 Causes skin irritation.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**
nitric acid
- **Hazard statements**
H290 May be corrosive to metals.
H315 Causes skin irritation.
H318 Causes serious eye damage.
- **Precautionary statements**
P234 Keep only in original packaging.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P310 *Immediately call a poison center/doctor.*
 P321 *Specific treatment (see on this label).*
 P332+P313 *If skin irritation occurs: Get medical advice/attention.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients




· **Chemical characterization: Mixtures**

· **Description:**

Aqueous solution.

Also contains substances at levels not considered to be hazardous.

· **Dangerous components:**

| | | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CAS: 7697-37-2 | nitric acid | >1-≤5% w/w |
| RTECS: QU5775000 |  Oxidizing Liquids – Category 3, H272;  Acute Toxicity (Inhalation) - Category 3, H331;  Corrosive to Metals - Category 1, H290; Skin Corrosion - Category 1A, H314 | |

Actual concentration ranges are withheld as a trade secret.

· **Additional information:**

The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

4 First-aid measures

· **Description of first aid measures**

· **General information:** *Immediately remove any clothing soiled by the product.*

· **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

· **After swallowing:** *Rinse mouth. Do not induce vomiting.*

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Absorb liquid components with liquid-binding material.
DO NOT USE SAWDUST.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 7697-37-2 nitric acid

EL STEL: 4 ppm

TWA: 2 ppm

EV STEL: 10 mg/m³, 4 ppm

TWA: 5 mg/m³, 2 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Not required.

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**

PVC gloves

Neoprene gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid

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| | |
|---------------------------------------------------|--------------------------------------------|
| Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |
| · pH-value: | < 2 |
| · Change in condition | |
| Melting point/Melting range: | Not determined. Not determined. |
| Boiling point/Boiling range: | Not determined. |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not determined. |
| · Ignition temperature: | Not determined |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Not determined. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not determined. |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- Reactivity**
Stable under normal conditions.
No further relevant information available.
- Chemical stability** Stable under normal conditions.
- Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- Possibility of hazardous reactions** No dangerous reactions known.
- Conditions to avoid Heat.**
- Incompatible materials:**
Strong oxidizing agents.

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Metals.

- **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

| | | |
|----------------------------|----------|-----------------|
| CAS: 7697-37-2 nitric acid | | |
| Inhalative | LC50/4 h | 2.65 mg/l (rat) |

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Strong irritant with the danger of severe eye injury.

- **Sensitization:**

Based on available data, the classification criteria are not met.

No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

| | | |
|----------------------------|-----------------------|--|
| CAS: 7697-37-2 nitric acid | | |
| LC50/48 | 180 mg/l (crustacean) | |

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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· **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Dispose in accordance with national regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT/TDG, ADR, IMDG, IATA** UN3264
- **DOT/TDG** Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)
- **ADR** 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
- **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

- **Transport hazard class(es)**
- **DOT/TDG (Transport dangerous goods):**



- **Class** 8 Corrosive substances
- **Label** 8

- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances
- **Label** 8

- **Packing group**
- **DOT/TDG, ADR, IMDG, IATA** III

- **Environmental hazards:** Not applicable.

- **Special precautions for user** Warning: Corrosive substances
- **Hazard identification number (Kemler code):** 80
- **EMS Number:** F-A,S-B
- **Segregation groups** Acids
- **Stowage Category** D

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- | | |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

- **Sara**

- **Section 355 (extremely hazardous substances):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

- **Section 313 (Specific toxic chemical listings):**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

- **TSCA (Toxic Substances Control Act):**

| |
|---------------------------------------|
| All components have the value ACTIVE. |
|---------------------------------------|

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

| |
|-----------------------------|
| All ingredients are listed. |
|-----------------------------|

- **Canadian Ingredient Disclosure list (limit 0.1%)**

| |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

- **Canadian Ingredient Disclosure list (limit 1%)**

| | |
|----------------|-------------|
| CAS: 7697-37-2 | nitric acid |
|----------------|-------------|

- **Hazard pictograms**



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- **Signal word Danger**

- **Hazard-determining components of labeling:**
nitric acid

- **Hazard statements**

H290 May be corrosive to metals.
H315 Causes skin irritation.
H318 Causes serious eye damage.

- **Precautionary statements**

P234 Keep only in original packaging.

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- P280 *Wear protective gloves/protective clothing/eye protection/face protection.*
- P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P310 *Immediately call a poison center/doctor.*
- P321 *Specific treatment (see on this label).*
- P332+P313 *If skin irritation occurs: Get medical advice/attention.*
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· **Contact:**· **Date of the latest revision of the safety data sheet** 11/03/2021 / -· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· **Sources**

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

· **Data compared to the previous version altered.** All sections have been updated.