1 Identification

- **Product identifier**

- **Trade name:** QualityCheck Metals no. 2 Sample (20ML)
- **Part number:** QCI-706B
- **Relevant identified uses of the substance or mixture and uses advised against**
  Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  Agilent Technologies Australia Pty Ltd
  679 Springvale Road
  Mulgrave
  Victoria 3170, Australia
- **Further information obtainable from:**
  Telephone: 1800 802 402
  e-mail: pdl-msds_author@agilent.com
  **Emergency telephone number:** CHEMTREC®: +(61) - 290372994

2 Hazard(s) Identification

- **Classification of the substance or mixture**

  ![Corrosion]

  Eye Dam. 1  H318  Causes serious eye damage.

  ![Skin Irrit. 2]

  Skin Irrit. 2  H315  Causes skin irritation.

- **Label elements**

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

  ![GHS05]

- **Signal word** Danger

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

- **Hazard statements**
  Causes skin irritation.
  Causes serious eye damage.

- **Precautionary statements**
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Wash thoroughly after handling.
  Wear protective gloves / eye protection / face protection.

(Contd. on page 2)
Trade name: QualityCheck Metals no. 2 Sample (20ML)

IF ON SKIN: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.

· Other hazards
· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

3 Composition and Information on Ingredients

· Chemical characterisation: Mixtures
· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:
  | 7697-37-2 | nitric acid | Ox. Liq. 2, H272; Skin Corr. 1, H314 | 4.95% |
  | 10043-35-3 | boric acid | Acute Tox. 2, H330; Repr. 1B, H360 | 0.116% |

· SVHC
  | 10043-35-3 | boric acid |

· Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First Aid Measures

· Description of first aid measures
· General information: Immediately remove any clothing soiled by the product.
· After inhalation: In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing: If symptoms persist consult doctor.
· 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 extinguishing methods suitable to surrounding conditions.
· Special hazards arising from the substance or mixture No further relevant information available.
· Advice for firefighters
· Protective equipment: No special measures required.
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:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Use neutralising agent.
  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** No special precautions are necessary if used correctly.
  - **Information about fire - and explosion protection:** No special measures required.

- **Conditions for safe storage, including any incompatibilities**
  - **Storage:**
    - **Requirements to be met by storerooms and receptacles:** No special requirements.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:** Keep container tightly sealed.

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

8 Exposure controls and personal protection

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

- **Control parameters**
  - **Ingredients with limit values that require monitoring at the workplace:**
    | Ingredient          | NES Short-term | NES Long-term | WES Short-term | WES Long-term |
    |---------------------|----------------|---------------|----------------|---------------|
    | 7697-37-2 nitric acid| 10 mg/m³, 4 ppm| 5.2 mg/m³, 2 ppm| 10 mg/m³, 4 ppm| 5.2 mg/m³, 2 ppm|

- **Additional information:** The lists valid during the making 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.

- **Respiratory protection:**
  When used as intended with Agilent instruments the use of the product under normal laboratory conditions and
  with standard practices does not result in significant airborne exposures and therefore respiratory protection is not

(Contd. on page 4)
needed.
Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved
device equipment with appropriate organic or acid gas cartridge.

- **Protection of hands:**
  Although not recommended for constant contact with the chemicals or for clean up, nitrile gloves 11-13mil
  thickness are recommended for normal use. The breakthrough time is 1hr. For cleaning a spill where there is direct
  contact of the chemical, butyl rubber gloves are recommended 12-15mil thickness with breakthrough times
  exceeding 4 hrs. Supplier recommendations should be followed.

- **Material of gloves**
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness

- **Penetration time of glove material**
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: > 4 hours

- **Eye protection:**
  Tightly sealed goggles

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### 9 Physical and Chemical Properties

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

- **General Information**
  - **Appearance:**
    - **Form:** Fluid
    - **Colour:** According to product specification
  - **Odour:**
    - **Odour threshold:**
  - **pH-value:**
    - Not determined.

- **Change in condition**
  - **Melting point/freezing point:** Undetermined.
  - **Initial boiling point and boiling range:** 100 °C

- **Flash point:**
  - Not applicable.

- **Flammability (solid, gas):**
  - Not applicable.

- **Decomposition temperature:**
  - Not determined.

- **Auto-ignition temperature:**
  - Product is not selfigniting.

- **Explosion properties:**
  - Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Vapour pressure at 20 °C:**
  - 23 hPa

- **Density at 20 °C:**
  - 1.01761 g/cm³

- **Relative density**
  - Not determined.

- **Vapour density**
  - Not determined.
48.1.26

- 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.
- Solvent content:
  - Water: 94.8 %
  - VOC (EC): 0.00 %
- Solids content: 0.2 %
- Other information: No further relevant information available.

10 Stability and Reactivity

- Reactivity: No further relevant information available.
- Chemical stability
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- Information on toxicological effects
- Acute toxicity
  - LD/LC50 values relevant for classification:
    | ATE (Acute Toxicity Estimates) |
    | Inhalative | LC50/4 h | 126 mg/L (rat) |
    | 7697-37-2 nitric acid |
    | Inhalative | LC50/4 h | 67 mg/L (rat) |
    | 10043-35-3 boric acid |
    | Oral | LD50 | 2,660 mg/kg (rat) |
    | Dermal | LD50 | >2,000 mg/kg (rabbit) |
    | Inhalative | LC50/4 h | 0.16 mg/L (rat) |
- Primary irritant effect: Irritant to skin and mucous membranes.
- Skin corrosion/irritation: Strong irritant with the danger of severe eye injury.
- Respiratory or skin sensitisation: No sensitising effects known.
- Additional toxicological information:
  The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
12 Ecological Information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behaviour 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 (German Regulation) (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 sewage water or drainage ditch undiluted or unneutralised.
  - 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 together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - ADG, IMDG, IATA: UN3264
- UN proper shipping name
  - ADG: 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)
  - ADG, IMDG, IATA
    - Class: 8 Corrosive substances.
    - Label: 8
Trade name: QualityCheck Metals no. 2 Sample (20ML)

- Packing group
  - ADG, IMDG, IATA
  - ADG, IMDG, IATA

- Environmental hazards:
  - Not applicable.

- Special precautions for user
  - Warning: Corrosive substances.

- Danger code (Kemler):
  - 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 Marpol and the IBC Code
  - Not applicable.

- Transport/Additional information:
  - ADG
    - Limited quantities (LQ)
    - 5L
    - Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
  - Transport category
    - 3
  - Tunnel restriction code
    - E

- IMDG
  - Limited quantities (LQ)
  - 5L
  - 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
- Australian Inventory of Chemical Substances
  - All ingredients are listed.

- Standard for the Uniform Scheduling of Medicines and Poisons
  - 7697-37-2 nitric acid S5, S6
  - 10043-35-3 boric acid S4, S5

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I
  - None of the ingredients is listed.

- National regulations:
- Other regulations, limitations and prohibitive regulations
- Substances of very high concern (SVHC) according to REACH, Article 57
  - 10043-35-3 boric acid
Trade name: QualityCheck Metals no. 2 Sample (20ML)

- 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.

- Relevant phrases
  H272 May intensify fire; oxidiser.
  H314 Causes severe skin burns and eye damage.
  H330 Fatal if inhaled.
  H360 May damage fertility or the unborn child.

- Department issuing SDS: Document Control / Regulatory
- Contact: regulatory@ultrasci.com

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  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)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  SVHC: Substances of Very High Concern
  vPvB: very Persistent and very Bioaccumulative
  Ox. Liq. 2: Oxidizing liquids – Category 2
  Acute Tox. 2: Acute toxicity – Category 2
  Skin Corr. 1: Skin corrosion/irritation – Category 1
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  Repr. 1B: Reproductive toxicity – Category 1B
- * Data compared to the previous version altered.