1 Identification

- **Product identifier**
  - **Product Name:** 6020 Interference Check Solution B 100mL, Part Number 5188-6527
  - **Part Number:** 5188-6527
  - **Relevant identified uses of the substance or mixture and uses advised against:** No further relevant information available.
  - **Application of the substance / the mixture**
    Analytical Chemistry
    A 100mL Solution
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Agilent Technologies, Inc
    5301 Stevens Creek Blvd.
    Santa Clara, CA 95051 USA
  - **Information department:** product safety department
  - **Emergency telephone number:**
    Emergency Phone Number (24 hours)
    CHEMTREC (800-424-9300)
    Outside US: 703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**

  ![GHS05 Corrosion](image)

  Skin Corr. 1B H314 Causes severe skin burns and eye damage.

  Eye Dam. 1 H318 Causes serious eye damage.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

  ![Corrosive](image)

  Causes burns.

- **Information concerning particular hazards for human and environment:**
  The product has to be labeled due to the calculation procedure of international guidelines.

- **Classification system:**
  The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

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

  ![GHS05](image)

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - **Nitric acid**
  - **Hazard statements**
    Causes severe skin burns and eye damage.
  - **Precautionary statements**
    Do not breathe dusts or mists.
    IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
    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.
    Store locked up.
    Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
4.0.6
· Classification system:
· NFPA ratings (scale 0 - 4)

```
Health = 3
Fire = 0
Reactivity = 0
```

· HMIS-ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FIRE</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

3 Composition/information on ingredients
· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Chemical identification of the substance/preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7697-37-2 nitric acid 5.0%</td>
</tr>
<tr>
<td>7440-62-2 vanadium from Ammonium trioxovanadate 0.002%</td>
</tr>
<tr>
<td>7440-47-3 chromium from Chromium(III) nitrate nonahydrate 0.002%</td>
</tr>
<tr>
<td>7440-48-4 cobalt 0.002%</td>
</tr>
<tr>
<td>7440-50-8 copper 0.002%</td>
</tr>
<tr>
<td>7439-96-5 manganese 0.002%</td>
</tr>
<tr>
<td>7440-02-0 nickel 0.002%</td>
</tr>
<tr>
<td>7782-49-2 selenium 0.001%</td>
</tr>
<tr>
<td>7440-38-2 arsenic 0.001%</td>
</tr>
<tr>
<td>7440-43-9 cadmium (non-pyrophoric) 0.001%</td>
</tr>
<tr>
<td>7440-66-6 zinc powder -zinc dust (stabilized) 0.001%</td>
</tr>
<tr>
<td>7440-22-4 silver 0.001%</td>
</tr>
<tr>
<td>7732-18-5 water, distilled, conductivity or of similar purity 94.984%</td>
</tr>
</tbody>
</table>

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: Drink copious amounts of water and provide fresh air. Immediately call a 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: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· Special hazards arising from the substance or mixture No further relevant information available.

(Contd. on page 3)
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 neutralizing agent.
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- 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
    - Ensure good ventilation/exhaustion at the workplace.
    - Prevent formation of aerosols.
  - 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: No special requirements.
  - Information about storage in one common storage facility: Not required.
- 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

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7697-37-2 nitric acid</td>
<td>PEL Long-term value: 5 mg/m³, 2 ppm&lt;br&gt;REL Short-term value: 10 mg/m³, 4 ppm&lt;br&gt;TLV Short-term value: 10 mg/m³, 4 ppm&lt;br&gt;Long-term value: 5.2 mg/m³, 2 ppm</td>
</tr>
</tbody>
</table>

- 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:
    - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Product Name: 6020 Interference Check Solution B 100mL, Part Number 5188-6527

(Contd. of page 3)

- **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests no recommendation to the glove material can be given for the product/the preparation/the chemical mixture.

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

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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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### 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**
  - Form: Liquid
  - Color: Colorless
  - Odor: Odorless
  - Odour Threshold: Not applicable.

- **pH-value:**
  - <1

- **Change in condition**
  - Melting point/Melting range: 0 °C (32°F)
  - Boiling point/Boiling range: 100 °C (212°F)

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

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

- **Ignition temperature:**

- **Decomposition temperature:**
  - Not applicable.

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

- **Danger of explosion:**
  - Product does not present an explosion hazard.

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

- **Vapor pressure at 20 °C (68 °F):**
  - 23 hPa (17 mm Hg)

- **Density**
  - 1.0 g/mL @ 20 °C

- **Relative density**
  - Not applicable.

- **Vapour density**
  - Not applicable.

- **Evaporation rate**
  - Not applicable.

- **Solubility in / Miscibility with**
  - Water: Miscible

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

(Contd. on page 5)
10 Stability and reactivity

- Reactivity
- 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:
- Primary irritant effect:
  - on the skin: Caustic effect on skin and mucous membranes.
  - on the eye: Strong caustic effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Corrosive
  Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    7440-47-3 Chromium from Chromium(III) nitrate nonahydrate 3
    7440-48-4 cobalt 2B
    7440-02-0 nickel 1
    7782-49-2 selenium 3
    7440-38-2 arsenic 1
    7440-43-9 cadmium (non-pyrophoric) 1
  - NTP (National Toxicology Program)
    7440-02-0 nickel R
    7782-49-2 selenium R
    7440-38-2 arsenic K
    7440-43-9 cadmium (non-pyrophoric) K
  - OSHA-Ca (Occupational Safety & Health Administration)
    7440-38-2 arsenic
    7440-43-9 cadmium (non-pyrophoric)

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
40.2.6 
- 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 2 (Self-assessment): hazardous for water
    - Do not allow product to reach ground water, water course or sewage system.
    - Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    - Danger to drinking water if even small quantities leak into the ground.
- 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: Disposal must be made according to official regulations.

14 Transport information
- UN-Number
  - DOT, ADR, IMDG, IATA: UN3264
- UN proper shipping name
  - DOT: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution)
  - ADR: 3264 Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution)
  - IMDG, IATA: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION)
- Transport hazard class(es)
  - DOT
    - Class: 8 Corrosive substances
    - Label: 8
- ADR, IMDG, IATA
  - Class: 8 Corrosive substances
  - Label: 8
- Packing group
  - DOT, ADR, IMDG, IATA: III
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user
  - Danger code (Kemler): Warning: Corrosive substances
  - DOT, ADR, IMDG, IATA: 80
  - EMS Number: F-A,S-B
### Segregation groups

- **Acids**

### 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

- **IMDG**
- **Limited quantities (LQ)**
  
  - **1L**
  - **Code:** E2
  - **Maximum net quantity per inner packaging:** 30 ml
  - **Maximum net quantity per outer packaging:** 500 ml

- **UN "Model Regulation":**
  
  - **UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution), 8, III**

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

  - **Sara**
  
    - **Section 355 (extremely hazardous substances):**
      
      - 7697-37-2 nitric acid

    - **Section 313 (Specific toxic chemical listings):**
      
      - 7697-37-2 nitric acid
      - 7440-62-2 Vanadium from Ammonium trioxovanadate
      - 7440-47-3 Chromium from Chromium(III) nitrate nonahydrate
      - 7440-48-4 cobalt
      - 7440-50-8 copper
      - 7439-96-5 manganese
      - 7440-02-0 nickel
      - 7782-49-2 selenium
      - 7440-38-2 arsenic
      - 7440-43-9 cadmium (non-pyrophoric)
      - 7440-66-6 zinc powder - zinc dust (stabilized)
      - 7440-22-4 silver

  - **TSCA (Toxic Substances Control Act):**
    
    - All ingredients are listed.

  - **Proposition 65**
    
    - **Chemicals known to cause cancer:**
      
      - 7440-48-4 cobalt
      - 7440-02-0 nickel
      - 7440-38-2 arsenic
      - 7440-43-9 cadmium (non-pyrophoric)

    - **Chemicals known to cause reproductive toxicity for females:**
      
      - None of the ingredients is listed.

    - **Chemicals known to cause reproductive toxicity for males:**
      
      - 7440-43-9 cadmium (non-pyrophoric)

    - **Chemicals known to cause developmental toxicity:**
      
      - 7440-43-9 cadmium (non-pyrophoric)
### Carcinogenic categories

- **EPA (Environmental Protection Agency)**
  - 7440-50-8 copper: D
  - 7439-96-5 manganese: D
  - 7782-49-2 selenium: D
  - 7440-38-2 arsenic: A
  - 7440-43-9 cadmium (non-pyrophoric): B1
  - 7440-66-6 zinc powder -zinc dust (stabilized): D, I, II
  - 7440-22-4 silver: D

- **TLV (Threshold Limit Value established by ACGIH)**
  - 7440-48-4 cobalt: A3
  - 7440-02-0 nickel: A3
  - 7440-38-2 arsenic: A1
  - 7440-43-9 cadmium (non-pyrophoric): A2

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  - 7440-02-0 nickel
  - 7440-38-2 arsenic
  - 7440-43-9 cadmium (non-pyrophoric)

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

- **Hazard pictograms**

  ![GHS05](image)

- **Signal word** Danger

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

- **Hazard statements**
  - Causes severe skin burns and eye damage.

- **Precautionary statements**
  - Do not breathe dusts or mists.
  - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Immediate call a poison center/doctor.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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16 Other information

Disclaimer: 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.

- **Department issuing SDS:** product safety department
- **Contact:**
  - Agilent Technologies, Inc.
  - 800-227-9770
- **Date of preparation / last revision** 05/13/2015 / -
- **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
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - 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) |
| HAIS: Hazardous Materials Identification System (USA) |
| Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B |
| Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1 |

Product Name: 6020 Interference Check Solution B 100mL, Part Number 5188-6527

(Contd. of page 8)