### 1 Identification

- **Product identifier**
- **Trade name:** Intermediate Stock Standard no. 2 (1X1 mL)
- **Part number:** NAIM-833B-1
- **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**

  ![Flame](image)

  Flam. Liq. 2 H225 Highly flammable liquid and vapour.

  ![Health Hazard](image)

  Muta. 1B H340 May cause genetic defects.
  Carc. 1B H350 May cause cancer.

  ![Warning](image)

  Acute Tox. 4 H302 Harmful if swallowed.
  Acute Tox. 4 H312 Harmful in contact with skin.
  Eye Irrit. 2A H319 Causes serious eye irritation.

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

  GHS02 GHS07 GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**
  - acetonitrile
Trade name: Intermediate Stock Standard no. 2 (1X1 mL)

2,6-dinitrotoluene
2-nitrotoluene
3-nitrotoluene

- **Hazard statements**
  - Highly flammable liquid and vapour.
  - Harmful if swallowed.
  - Harmful in contact with skin.
  - Causes serious eye irritation.
  - May cause genetic defects.
  - May cause cancer.

- **Precautionary statements**
  - If medical advice is needed, have product container or label at hand.
  - Keep out of reach of children.
  - Read label before use.
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  - Keep container tightly closed.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting equipment.
  - Use only non-sparking tools.
  - Take precautionary measures against static discharge.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Use personal protective equipment as required.
  - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  - Rinse mouth.
  - 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.
  - IF exposed or concerned: Get medical advice/attention.
  - Specific measures (see on this label).
  - If eye irritation persists: Get medical advice/attention.
  - Wash contaminated clothing before reuse.
  - In case of fire: Use for extinction: CO2, powder or water spray.
  - Store in a well-ventilated place. Keep cool.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **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.
## 4 First Aid Measures

### Description of first aid measures
- **General information:**
  Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Call for a doctor immediately.

### 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, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet

### 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). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

---

### Dangerous components:

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Name</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8</td>
<td>Acetonitrile</td>
<td>99.11%</td>
</tr>
<tr>
<td>606-20-2</td>
<td>2,6-dinitrotoluene</td>
<td>0.127%</td>
</tr>
<tr>
<td>88-72-2</td>
<td>2-nitrotoluene</td>
<td>0.127%</td>
</tr>
</tbody>
</table>

*· Additional information: For the wording of the listed hazard phrases refer to section 16.*
7 Handling and Storage

Handling:

- Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.

- Information about fire - and explosion protection:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
  Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities

Storage:

- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
  Keep container tightly sealed.
  Store in cool, dry conditions in well sealed receptacles.

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Chemical</th>
<th>NES</th>
<th>WES</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>Short-term value: 101 mg/m³, 60 ppm</td>
<td>Long-term value: 67 mg/m³, 40 ppm</td>
<td>Sk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-term value: 101 mg/m³, 60 ppm</td>
<td>Long-term value: 67 mg/m³, 40 ppm</td>
</tr>
<tr>
<td>88-72-2 2-nitrotoluene</td>
<td>Long-term value: 11 mg/m³, 2 ppm</td>
<td>Sk</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 11 mg/m³, 2 ppm</td>
<td>Sk</td>
</tr>
</tbody>
</table>

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
Safety Data Sheet
according to WHS Regulations

Printing date 29.03.2019  Revision: 29.03.2019
Version number 3

Trade name: Intermediate Stock Standard no. 2 (1X1 mL)

Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes.
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
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

9 Physical and Chemical Properties

Information on basic physical and chemical properties

General Information
Appearance:
Form: Fluid
Colour: Colourless
Odour: Aromatic
Odour threshold: Not determined.

pH-value: Not determined.

Change in condition
Melting point/freezing point: -46 °C
Initial boiling point and boiling range: 81 °C

Flash point: 2 °C

Flammability (solid, gas): Not applicable.

Ignition temperature: 525 °C

Decomposition temperature: Not determined.

Auto-ignition temperature: Product is not selfigniting.
### 48.1.26

#### Explosive properties:
Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

<table>
<thead>
<tr>
<th>Explosive properties:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploision limits:</td>
<td></td>
</tr>
<tr>
<td>Lower:</td>
<td>4.4 Vol %</td>
</tr>
<tr>
<td>Upper:</td>
<td>16 Vol %</td>
</tr>
<tr>
<td>Vapour pressure at 20 °C:</td>
<td>0 hPa</td>
</tr>
<tr>
<td>Density at 20 °C:</td>
<td>0.786 g/cm³</td>
</tr>
<tr>
<td>Relative density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

#### 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:
| VOC (EC):              | 0.00 %          |

#### Solids content:
| 0.1 %                  | 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) |
| Oral | LD50 | 1,296 mg/kg |
| Dermal | LD50 | >1,889 mg/kg |
| Inhalative | LC50/4 h | 244 mg/L |

#### 75-05-8 acetonitrile
| Oral | LD50 | 1,320 mg/kg (rat) |
48.1.26

Dermal LD50 >2,000 mg/kg (rabbit)

Inhalative LC50/4 h 3,587 mg/L (mouse)

606-20-2 2,6-dinitrotoluene

Oral LD50 177 mg/kg (rat)

88-72-2 2-nitrotoluene

Oral LD50 891 mg/kg (rat)

- Primary irritant effect:
  - Skin corrosion/irritation No irritant effect.
  - Serious eye damage/irritation Irritating effect.
  - 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:
  Harmful
  Irritant
  The product can cause inheritable damage.

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  Muta. 1B, Carc. 1B

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 3 (German Regulation) (Self-assessment): extremely hazardous for water
    Do not allow product to reach ground water, water course or sewage system, even in small quantities.
    Danger to drinking water if even extremely 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 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

- Not Regulated, De minimus Quantities

- UN-Number
  - ADG, IMDG, IATA: UN1648

- UN proper shipping name
  - ADG: 1648 ACETONITRILE
  - IMDG, IATA: ACETONITRILE

- Transport hazard class(es)
  - ADG, IMDG, IATA

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>II</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

- Special precautions for user
  - Warning: Flammable liquids.
  - Danger code (Kemler): 33
  - EMS Number: F-E,S-E
  - Stowage Category: B

- Transport in bulk according to Annex II of Marpol and the IBC Code
  - Not applicable.

- Transport/Additional information:

<table>
<thead>
<tr>
<th>ADG</th>
<th>IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excerpted quantities (EQ)</td>
<td>Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</td>
</tr>
<tr>
<td>Transport category: 2</td>
<td>Transport category: 2</td>
</tr>
<tr>
<td>Tunnel restriction code: D/E</td>
<td>Tunnel restriction code: D/E</td>
</tr>
</tbody>
</table>

- UN "Model Regulation":
  - UN 1648 ACETONITRILE, 3, II
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Australian Inventory of Chemical Substances
    | 75-05-8  | acetonitrile |
    | 606-20-2 | 2,6-dinitrotoluene |
    | 479-45-8 | N-methyl-N,2,4,6-tetranitroaniline |
    | 99-08-1  | 3-nitrotoluene |
    | 99-99-0  | 4-nitrotoluene |
    | 88-72-2  | 2-nitrotoluene |
  - Standard for the Uniform Scheduling of Medicines and Poisons
    | 88-72-2  | 2-nitrotoluene |
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.
  - Seveso category P5c FLAMMABLE LIQUIDS
  - Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
  - National regulations:
    - Additional classification according to Decree on Hazardous Materials, Annex II:
      Carcinogenic hazardous material group III (dangerous).
  - Information about limitation of use:
    Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
    Exceptions can be made by the authorities in certain cases.
  - 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
  H225 Highly flammable liquid and vapour.
  H301 Toxic if swallowed.
  H302 Harmful if swallowed.
  H311 Toxic in contact with skin.
  H312 Harmful in contact with skin.
  H319 Causes serious eye irritation.
  H331 Toxic if inhaled.
  H332 Harmful if inhaled.
  H340 May cause genetic defects.
  H341 Suspected of causing genetic defects.
  H350 May cause cancer.
  H361 Suspected of damaging fertility or the unborn child.
  H373 May cause damage to organs through prolonged or repeated exposure.

- 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
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Flammable liquids – Category 2
- Acute Tox. 3: Acute toxicity – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
- Muta. 1B: Germ cell mutagenicity – Category 1B
- Muta. 2: Germ cell mutagenicity – Category 2
- Care. 1B: Carcinogenicity – Category 1B
- Repr. 2: Reproductive toxicity – Category 2
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.