



# Agilent Technologies

**Kit Name:** GlykoPrep 2-AB Labeling Module, 24-ct

**Kit PN:** GS24-AB

This product is a multi-level kit, composed of the following modules and individual chemical components:

## Kit Components

| Kit Component Part Number | Kit Component Name             | Qty    |
|---------------------------|--------------------------------|--------|
| WS0300-24                 | Reductant Solution, 75 $\mu$ l | 1 vial |
| WS0302-24                 | 2-AB Solution, 75 $\mu$ l      | 1 vial |

SDSs for each component follow this cover sheet.

## Transportation Information for the Kit:

Proper Shipping Names:

| DOT    | IATA/ICAO | China         |
|--------|-----------|---------------|
| UN2790 | UN2790    | UN2790/UN3082 |

**Safety Data Sheet  
according to WHS Regulations**

Revision Date: 24.04.2019

Issue Date: 24.04.2019

**1 Identification**

- **Product identifier**
- **Trade name:** Reductant Solution
- **Article number:** WS0300, WS0300-24
- **Relevant identified uses of the substance or mixture and uses advised against**
- **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 Australia Pty Ltd  
679 Springvale Road  
Mulgrave  
Victoria 3170, Australia
- **Email:** pdl-msds\_author@agilent.com
- **Phone number:** 1800 802 402
- **Emergency telephone number:** CHEMTREC®: +(61)-290372994

**2 Hazard(s) Identification**

- **Classification of the substance or mixture**



GHS06 skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.



GHS05 corrosion

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



GHS07

STOT SE 3 H335 May cause respiratory irritation.

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



GHS05



GHS06



GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
sodium cyanborohydride

(Contd. on page 2)

## Safety Data Sheet according to WHS Regulations

Revision Date: 24.04.2019

Issue Date: 24.04.2019

Trade name: Reductant Solution

(Contd. of page 1)

- **Hazard statements**

Fatal if swallowed.  
Fatal in contact with skin.  
Causes severe skin burns and eye damage.  
May cause respiratory irritation.

- **Precautionary statements**

Do not allow contact with air.  
Handle under inert gas. Protect from moisture.  
Do not breathe dusts or mists.  
Do not get in eyes, on skin, or on clothing.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wear respiratory protection.  
IF SWALLOWED: Call a doctor if you feel unwell.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Specific treatment (see on this label).  
Take off immediately all contaminated clothing and wash it before reuse.  
Collect spillage.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

Contact with acids liberates very toxic gas.

- **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:**

|            |                        |       |
|------------|------------------------|-------|
| 67-68-5    | dimethyl sulfoxide     | 86.0% |
| 25895-60-7 | sodium cyanborohydride | 14.0% |

- **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:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

(Contd. on page 3)

## Safety Data Sheet according to WHS Regulations

Revision Date: 24.04.2019

Issue Date: 24.04.2019

Trade name: Reductant Solution

(Contd. of page 2)

- **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:**  
Sand. Do not use water.  
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
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.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **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 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:** Do not store together with acids.
- **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.

AU

(Contd. on page 4)

## Safety Data Sheet according to WHS Regulations

Revision Date: 24.04.2019

Issue Date: 24.04.2019

Trade name: Reductant Solution

(Contd. of page 3)

### 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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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 eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

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

- **Material of gloves** Wear suitable 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          |
| Colour:          | Colourless      |
| Odour:           | Characteristic  |
| Odour threshold: | Not determined. |

|           |                 |
|-----------|-----------------|
| pH-value: | Not determined. |
|-----------|-----------------|

##### · Change in condition

- |                                          |               |
|------------------------------------------|---------------|
| Melting point/freezing point:            | Undetermined. |
| Initial boiling point and boiling range: | Undetermined. |

(Contd. on page 5)

## Safety Data Sheet according to WHS Regulations

Revision Date: 24.04.2019

Issue Date: 24.04.2019

Trade name: Reductant Solution

(Contd. of page 4)

|                                                  |                                               |
|--------------------------------------------------|-----------------------------------------------|
| · <b>Flash point:</b>                            | Not applicable.                               |
| · <b>Flammability (solid, gas):</b>              | Not applicable.                               |
| · <b>Decomposition temperature:</b>              | Not determined.                               |
| · <b>Auto-ignition temperature:</b>              | Product is not selfigniting.                  |
| · <b>Explosive properties:</b>                   | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                       |                                               |
| Lower:                                           | Not determined.                               |
| Upper:                                           | Not determined.                               |
| · <b>Vapour pressure:</b>                        | Not determined.                               |
| · <b>Density:</b>                                | Not determined.                               |
| · <b>Relative density</b>                        | Not determined.                               |
| · <b>Vapour density</b>                          | Not determined.                               |
| · <b>Evaporation rate</b>                        | Not determined.                               |
| · <b>Solubility in / Miscibility with water:</b> | Not miscible or difficult to mix.             |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                               |
| · <b>Viscosity:</b>                              |                                               |
| Dynamic:                                         | Not determined.                               |
| Kinematic:                                       | Not determined.                               |
| · <b>Solvent content:</b>                        |                                               |
| Organic solvents:                                | 86.0 %                                        |
| Solids content:                                  | 14.0 %                                        |
| · <b>Other information</b>                       | 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:**

**67-68-5 dimethyl sulfoxide**

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | 14,500 mg/kg (rat) |
|------|------|--------------------|

(Contd. on page 6)

## Safety Data Sheet according to WHS Regulations

Revision Date: 24.04.2019

Issue Date: 24.04.2019

Trade name: Reductant Solution

(Contd. of page 5)

|            |          |                       |
|------------|----------|-----------------------|
| Dermal     | LD50     | >5,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 40,250 mg/l (rat)     |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Caustic effect on skin and mucous membranes.
- **Serious eye damage/irritation** Strong caustic 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:  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### 12 Ecological Information

- **Toxicity**

- **Aquatic toxicity:**

67-68-5 dimethyl sulfoxide

EC50 | mg/kg (daphnia)

- **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 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
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 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 minimis Quantities

- **UN-Number**
- **ADG**

UN3082

(Contd. on page 7)

AU


## Safety Data Sheet according to WHS Regulations

Revision Date: 24.04.2019

Issue Date: 24.04.2019

Trade name: Reductant Solution

(Contd. of page 6)

|                                                                                       |                                                                                                                        |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| · <b>IMDG, IATA</b>                                                                   | not regulated                                                                                                          |
| · <b>UN proper shipping name</b><br>· <b>ADG</b>                                      | 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,<br>LIQUID, N.O.S.                                                            |
| · <b>IMDG, IATA</b>                                                                   | not regulated                                                                                                          |
| · <b>Transport hazard class(es)</b><br>· <b>ADG</b>                                   |                                                                                                                        |
|      |                                                                                                                        |
| · <b>Class</b><br>· <b>Label</b>                                                      | 9 Miscellaneous dangerous substances and articles.<br>9                                                                |
| · <b>IMDG, IATA</b><br>· <b>Class</b>                                                 | not regulated                                                                                                          |
| · <b>Packing group</b><br>· <b>ADG</b><br>· <b>IMDG, IATA</b>                         | III<br>not regulated                                                                                                   |
| · <b>Environmental hazards:</b><br>· <b>Special marking (ADG):</b>                    | Symbol (fish and tree)                                                                                                 |
| · <b>Special precautions for user</b><br>· <b>Danger code (Kemler):</b>               | Warning: Miscellaneous dangerous substances and articles.<br>90                                                        |
| · <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>           | Not applicable.                                                                                                        |
| · <b>Transport/Additional information:</b>                                            |                                                                                                                        |
| · <b>ADG</b><br>· <b>Limited quantities (LQ)</b><br>· <b>Excepted quantities (EQ)</b> | 5L<br>Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · <b>Transport category</b><br>· <b>Tunnel restriction code</b>                       | 3<br>-                                                                                                                 |
| · <b>UN "Model Regulation":</b>                                                       | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,<br>LIQUID, N.O.S., 9, 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

67-68-5 | dimethyl sulfoxide

S4, S6

##### · GHS label elements The product is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. on page 8)



## Safety Data Sheet according to WHS Regulations

Revision Date: 24.04.2019

Issue Date: 24.04.2019

Trade name: Reductant Solution

(Contd. of page 7)

- **Hazard pictograms**



GHS05 GHS06 GHS07

- **Signal word** Danger

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

sodium cyanborohydride

- **Hazard statements**

Fatal if swallowed.

Fatal in contact with skin.

Causes severe skin burns and eye damage.

May cause respiratory irritation.

- **Precautionary statements**

Do not allow contact with air.

Handle under inert gas. Protect from moisture.

Do not breathe dusts or mists.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

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

Wear respiratory protection.

IF SWALLOWED: Call a doctor if you feel unwell.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Specific treatment (see on this label).

Take off immediately all contaminated clothing and wash it before reuse.

Collect spillage.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Seveso category**

H2 ACUTE TOXIC

E2 Hazardous to the Aquatic Environment

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

- **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.

- **Abbreviations and acronyms:**

Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

**Safety Data Sheet  
according to WHS Regulations**

Revision Date: 25.04.2019

Issue Date: 24.04.2019

**1 Identification**

- **Product identifier**
- **Trade name:** 2-AB Solution; 2-AB Solution, 24-ct
- **Article number:** WS0302, WS0302-24
- **Relevant identified uses of the substance or mixture and uses advised against**
- **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 Australia Pty Ltd  
679 Springvale Road  
Mulgrave  
Victoria 3170, Australia
- **Email:** pdl-msds\_author@agilent.com
- **Phone number:** 1800 802 402
- **Emergency telephone number:** CHEMTREC®: +(61)-290372994

**2 Hazard(s) Identification**

- **Classification of the substance or mixture**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H312 Harmful in contact with skin.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

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

- **Hazard pictograms**



GHS02



GHS05



GHS07

- **Signal word** Danger

(Contd. on page 2)

AU

## Safety Data Sheet according to WHS Regulations

Revision Date: 25.04.2019

Issue Date: 24.04.2019

Trade name: 2-AB Solution; 2-AB Solution, 24-ct

(Contd. of page 1)

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

acetic acid  
anthranilamide

- **Hazard statements**

Flammable liquid and vapour.  
Harmful in contact with skin.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.

- **Precautionary statements**

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.  
Do not breathe dusts or mists.  
Wash thoroughly after handling.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
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).  
Take off contaminated clothing and wash it before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
In case of fire: Use for extinction: CO<sub>2</sub>, 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.

- **Dangerous components:**

|         |                    |       |
|---------|--------------------|-------|
| 64-19-7 | acetic acid        | 55.0% |
| 67-68-5 | dimethyl sulfoxide | 35.0% |
| 88-68-6 | anthranilamide     | 10.0% |

- **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.

(Contd. on page 3)

## Safety Data Sheet according to WHS Regulations

Revision Date: 25.04.2019

Issue Date: 24.04.2019

**Trade name:** 2-AB Solution; 2-AB Solution, 24-ct

(Contd. of page 2)

- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
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 plenty of water and provide fresh air. 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:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **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).  
Use neutralising agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **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 fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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.

(Contd. on page 4)

## Safety Data Sheet according to WHS Regulations

Revision Date: 25.04.2019

Issue Date: 24.04.2019

Trade name: 2-AB Solution; 2-AB Solution, 24-ct

(Contd. of page 3)

- **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:**

##### 64-19-7 acetic acid

|     |                                                                                                   |
|-----|---------------------------------------------------------------------------------------------------|
| NES | Short-term value: 37 mg/m <sup>3</sup> , 15 ppm<br>Long-term value: 25 mg/m <sup>3</sup> , 10 ppm |
| WES | Short-term value: 37 mg/m <sup>3</sup> , 15 ppm<br>Long-term value: 25 mg/m <sup>3</sup> , 10 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 eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

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

- **Material of gloves** Wear suitable 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
  - Colour:** According to product specification
  - Odour:** Characteristic

(Contd. on page 5)

## Safety Data Sheet according to WHS Regulations

Revision Date: 25.04.2019

Issue Date: 24.04.2019

Trade name: 2-AB Solution; 2-AB Solution, 24-ct

(Contd. of page 4)

|                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| · Odour threshold:                        | Not determined.                                                                             |
| · pH-value at 20 °C:                      | 8.8                                                                                         |
| · Change in condition                     |                                                                                             |
| Melting point/freezing point:             | Undetermined.                                                                               |
| Initial boiling point and boiling range:  | 118 °C                                                                                      |
| · Flash point:                            | 40 °C                                                                                       |
| · Flammability (solid, gas):              | Not applicable.                                                                             |
| · Ignition temperature:                   | 270 °C                                                                                      |
| · Decomposition temperature:              | Not determined.                                                                             |
| · Auto-ignition temperature:              | Product is not selfigniting.                                                                |
| · Explosive properties:                   | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · Explosion limits:                       |                                                                                             |
| Lower:                                    | 1.8 Vol %                                                                                   |
| Upper:                                    | 63 Vol %                                                                                    |
| · Vapour pressure at 20 °C:               | 16 hPa                                                                                      |
| · Density at 20 °C:                       | 1.0858 g/cm <sup>3</sup>                                                                    |
| · Relative density                        | Not determined.                                                                             |
| · Vapour 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.                                                                             |
| · Solvent content:                        |                                                                                             |
| Organic solvents:                         | 90.0 %                                                                                      |
| Solids content:                           | 10.0 %                                                                                      |
| · 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.

AU

(Contd. on page 6)

## Safety Data Sheet according to WHS Regulations

Revision Date: 25.04.2019

Issue Date: 24.04.2019

Trade name: 2-AB Solution; 2-AB Solution, 24-ct

(Contd. of page 5)

### 11 Toxicological Information

- **Information on toxicological effects**

- **Acute toxicity**

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

**64-19-7 acetic acid**

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 3,310 mg/kg (rat)    |
| Dermal | LD50 | 1,060 mg/kg (rabbit) |

- **Primary irritant effect:**

- **Skin corrosion/irritation** Caustic effect on skin and mucous membranes.

- **Serious eye damage/irritation** Strong caustic effect.

- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.

- **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:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### 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.

-AU-

(Contd. on page 7)

**Safety Data Sheet**  
according to WHS Regulations

Revision Date: 25.04.2019

Issue Date: 24.04.2019

Trade name: 2-AB Solution; 2-AB Solution, 24-ct

(Contd. of page 6)

**14 Transport information**

Not Regulated, De minimis Quantities

|                                                                                                                          |                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| · UN-Number<br>· ADG, IMDG, IATA                                                                                         | UN2790                                                                                                                |
| · UN proper shipping name<br>· ADG<br>· IMDG, IATA                                                                       | 2790 ACETIC ACID SOLUTION mixture<br>ACETIC ACID SOLUTION mixture                                                     |
| · Transport hazard class(es)<br>· ADG, IMDG, IATA                                                                        |                                                                                                                       |
|                                         |                                                                                                                       |
| · Class<br>· Label                                                                                                       | 8 Corrosive substances.<br>8                                                                                          |
| · Packing group<br>· ADG, IMDG, IATA                                                                                     | II                                                                                                                    |
| · Environmental hazards:                                                                                                 | Not applicable.                                                                                                       |
| · Special precautions for user<br>· Danger code (Kemler):<br>· EMS Number:<br>· Segregation groups<br>· Stowage Category | Warning: Corrosive substances.<br>80<br>F-A,S-B<br>Acids<br>A                                                         |
| · Transport in bulk according to Annex II of Marpol and the IBC Code                                                     | Not applicable.                                                                                                       |
| · Transport/Additional information:                                                                                      |                                                                                                                       |
| · ADG<br>· Limited quantities (LQ)<br>· Excepted quantities (EQ)                                                         | 1L<br>Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · Transport category<br>· Tunnel restriction code                                                                        | 2<br>E                                                                                                                |
| · IMDG<br>· Limited quantities (LQ)<br>· Excepted quantities (EQ)                                                        | 1L<br>Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · UN "Model Regulation":                                                                                                 | UN 2790 ACETIC ACID SOLUTION MIXTURE, 8, II                                                                           |

-AU

(Contd. on page 8)



## Safety Data Sheet according to WHS Regulations

Revision Date: 25.04.2019

Issue Date: 24.04.2019

Trade name: 2-AB Solution; 2-AB Solution, 24-ct

(Contd. of page 7)

### 15 Regulatory information

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

- **Australian Inventory of Chemical Substances**

|         |                    |
|---------|--------------------|
| 64-19-7 | acetic acid        |
| 67-68-5 | dimethyl sulfoxide |

- **Standard for the Uniform Scheduling of Medicines and Poisons**

|         |                    |            |
|---------|--------------------|------------|
| 64-19-7 | acetic acid        | S2, S5, S6 |
| 67-68-5 | dimethyl sulfoxide | S4, S6     |

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

- **Hazard pictograms**



GHS02    GHS05    GHS07

- **Signal word** Danger

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

acetic acid  
anthranilamide

- **Hazard statements**

Flammable liquid and vapour.  
Harmful in contact with skin.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.

- **Precautionary statements**

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.  
Do not breathe dusts or mists.  
Wash thoroughly after handling.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
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).  
Take off contaminated clothing and wash it before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
In case of fire: Use for extinction: CO<sub>2</sub>, 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.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

(Contd. on page 9)

## Safety Data Sheet according to WHS Regulations

Revision Date: 25.04.2019

Issue Date: 24.04.2019

**Trade name:** 2-AB Solution; 2-AB Solution, 24-ct

(Contd. of page 8)

- **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
- **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.

· **Abbreviations and acronyms:**

Flam. Liq. 3: Flammable liquids – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Skin Sens. 1: Skin sensitisation – Category 1

AU