

**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING****1.1. Product Identifier****Product form:** mixture**Trade name:** Chemdye® Chemical Indicators.

- BDA4, BDA4-1, BDA5, BD125X/1, BD125X/2, BD125X10/2.

**1.2. Relevant identified uses of the substance or mixture and uses against****1.2.1. Relevant identified uses of the substance or mixture:**

Designed to indicate conditions for steam sterilization.

**1.2.2. Uses advised against:**

Do not use for purposes other than manufacture of chemical indicators.

**1.3. Details of the supplier of the safety sheet****Manufacturer:** Terragene S.A.**Address:** Ruta Nacional N° 9, Km 280 - CP 2130 - Parque Industrial Micropi - Alvear - Santa Fe - Argentina**Produced by:** QA&RA Department**Info Telephone:** +54 341 5587007 | 5587008 | 5587009**E-mail:** [info@terragene.com](mailto:info@terragene.com)**Web Page:** [www.terragene.com](http://www.terragene.com)**1.4. Emergency telephone**

24-hour Emergency Number: Chemtrec International: +17035273887

**Section 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture.**The product is not classified as dangerous according to **Regulation (EC) No. 1272/2008 (CLP)**.

**CLASSIFICATION:**

N/A

Adverse physicochemical, human health and environmental effects:

No information available.

**2.2. Label elements**

Labelling according to Regulation (EC) No. 1272/2008 (CLP)

**2.2.1. Hazard pictograms**

N/A

**2.2.2 Signal word**

N/A

**2.2.3. Hazard statements**

N/A

**2.2.4. Precautionary statements**

N/A

**2.2.5. Supplemental Hazard information (EU):**

N/A

**2.3. Other hazards**

PBT: not yet assessed.

VPvB: not yet assessed.

**Section 3: COMPOSITION/ INFORMATION ON INGREDIENTS****3.1. Substance**

Not applicable.

**3.2. Mixture**

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Regulation (EC) No. 1272/2008 (CLP)

- Chemdye® Chemical Indicators:

- BDA4, BDA4-1, BDA5, BD125X/1, BD125X/2, BD125X10/2

| Ingredients               | CAS Number | Content % | EC Number | Classification according to Regulation (EC) No. 1272/2008 (CLP) |
|---------------------------|------------|-----------|-----------|-----------------------------------------------------------------|
| 2,4-dihydroxybenzoic acid | 89-86-1    | 5-40      | 201-946-9 | Eye Dam.1; H318<br>Skin Sens. 1; H317                           |
| Paper substrate           | N/A        | 60-95     | N/A       | N/A                                                             |

Comments: Exact concentrations are withheld as trade secret.

### Section 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

##### 4.1.1. General:

No need for first aid is anticipated.

##### 4.1.2. In case of ingestion:

No need for first aid is anticipated.

##### 4.1.3. In case of eye contact:

No need for first aid is anticipated.

##### 4.1.4. In case of skin contact:

No need for first aid is anticipated.

##### 4.1.5. In case of inhalation:

No need for first aid is anticipated.

#### 4.2. Most important symptoms and effects, both acute and delayed

N/A

#### 4.3. Indication of any immediate medical attention and special treatment needed

N/A

### Section 5: FIREFIGHTING MEASURES

**5.1. Extinguishing Media**

Suitable extinguishing media: Water, foam, carbon dioxide (CO<sub>2</sub>) or dry chemical powder.

Unsuitable extinguishing media: None known.

**5.2. Special hazards arising from the substance or mixture**

N/A

**5.3. Advice for firefighter**

N/A

**Section 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

N/A

**6.1.1. For non-emergency personnel**

N/A

**6.1.2. For emergency responders**

N/A

**6.2. Environmental precautions**

N/A

**6.3. Methods for containment and cleaning up**

Released material in dry form may be swept up using a broom and dust pan or picked up by hand if wearing protective gloves. Clean up residue. Seal container. Dispose of collected material according to country's healthcare and safety regulations.

**6.4. Reference to other sections**

Section 8 and 13.

**Section 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

Precautionary for safe handling: Read label before use. Chemdye® Chemical Indicators are designed to be used in different sterilizers. When used in such devices, no inherent hazards are likely to present themselves. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

Hygiene measures: Take care for general good hygiene and housekeeping. Do not drink, eat, smoke when using this product.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage conditions: Store in dark, dry conditions before and after use. Do not freeze. Ensure adequate ventilation. Avoid dust formation.

Incompatible materials: Do not store near sterilizing agents or other chemical products.

Keep away from sources of ignition.

Temperatures: 10 – 30 °C.

Relative humidity: 30 – 80 %.

**7.3. Specific end use(s)**

- Chemdye® BDA4 designed to evaluate of air displacement and steam penetration in vacuum assisted steam sterilizers. Bowie-Dick cycles of 3.5 minutes at 134 °C or 4 minutes at 132°C.
- Chemdye® BDA4-1 designed to evaluate the efficacy of air removal in dynamic-air-removal steam sterilizers. Cycles of 3.5 minutes at 134 °C or 4 minutes at 132 °C.
- Chemdye® BDA5 designed to evaluate of air displacement and steam penetration in vacuum assisted steam sterilizers. Bowie & Dick cycles of 3.5 minutes at 134 °C or 4 minutes at 132°C.
- Chemdye® BD125X/1 designed to test air removal efficiency of dynamic-air-removal steam sterilizers operating at 132 °C for 4 minutes and at 134 °C for 3.5 minutes.
- Chemdye® BD125X/2 designed to detect inadequate air removal and steam penetration in vacuum-assisted Steam sterilizers. Cycles of 16.9 min at 121 °C, 4 minutes at 132 °C and 3.5 minutes at 134 °C.
- Chemdye® BD125X10/2 designed to detect inadequate air removal and steam penetration in vacuum-assisted Steam sterilizers. Cycles of 10 minutes at 121 °C.

**Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION****8.1. Control parameters****8.1.1. Occupational Exposure Limits****Exposure limits**

This product, as supplied, does not contain any hazardous material with occupational exposure limits established by the region specific regulatory bodies.

**Biological limit values**

This product, as supplied, does not contain any hazardous material with biological limits established by the region specific regulatory bodies.

**8.2. Exposure controls****8.2.1. Engineering controls**

No engineering controls are necessary.

**8.2.2. Personal protective equipment**

The use of gloves, moisture impervious aprons, and other protective clothing must be dictated by the standard operational procedures of each individual laboratory. Wash hands thoroughly after handling.

Hand protection: According to operational procedures of each individual laboratory.

Eye protection: According to operational procedures of each individual laboratory.

Skin and body protection: According to operational procedures of each individual laboratory.

Respiratory protection: According to operational procedures of each individual laboratory.

**8.2.3. Environmental exposure controls**

N/A

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

|                  |              |
|------------------|--------------|
| Physical State:  | Solid        |
| Appearance:      | Varies       |
| Color:           | White/yellow |
| Odour:           | N/A          |
| Odour threshold: | N/A          |

|                                  |     |
|----------------------------------|-----|
| pH:                              | N/A |
| Relative evaporation rate:       | N/A |
| Melting point/Freezing point:    | N/A |
| Boiling point:                   | N/A |
| Flash point:                     | N/A |
| Flammability:                    | N/A |
| Vapour pressure:                 | N/A |
| Relative vapour density at 20°C: | N/A |
| Relative density:                | N/A |
| Log Pow:                         | N/A |
| Explosive properties:            | N/A |
| Oxidising properties:            | N/A |
| Solids:                          | N/A |
| Viscosity:                       | N/A |
| Decomposition Temp.:             | N/A |
| Explosive Limits:                | N/A |
| Auto-ignition Temp.:             | N/A |
| Solubility:                      | N/A |

### 9.2. Other information

VOC's (ASTM D 2369-87): N/A

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Stable under recommended storage conditions (see section 7).

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

Hazardous Decomposition Products: N/A.

Hazardous Polymerization: N/A.

### 10.4. Conditions to avoid

Avoid excessive heat and pressure. Avoid dust formation.

**10.5. Incompatible materials**

Sterilizing agents.

**10.6. Hazardous decomposition products**

None under normal conditions of use.

**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****11.1.1. Signs and symptoms of exposure**

Acute toxicity: Not classified. Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Not classified. Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Not classified. Based on available data, the classification criteria are not met.

Respiratory or skin sensitization: Not classified. Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Not classified. Based on available data, the classification criteria are not met.

Carcinogenicity: Not classified. Based on available data, the classification criteria are not met.

Reproductive toxicity: Not classified. Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure): Not classified. Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Not classified. Based on available data, the classification criteria are not met.

Aspiration hazard: Not classified. Based on available data, the classification criteria are not met.

Additional Information: This product, when used under appropriate conditions and in accordance with the instructions for use, should not present any risk to health. However, the use or processing of the product in a manner not covered by the product instructions could affect the operation of the product and present a potential risk to health and safety.



**Section 12: ECOLOGICAL INFORMATION****12.1. Toxicity**

No information available.

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. Other adverse effects.**

No information available.

**Section 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

Waste Disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Waste must be disposed of in accordance with federal, state, and local environmental control regulations. Ensure all national/local regulations are observed.

Avoid release to the environment.

**Section 14: TRANSPORT INFORMATION**

**14.1. UN number**

Not considered a dangerous good according to IATA, IMDG, ADN, ADR, RID Dangerous Goods Regulations.

**14.2. UN proper shipping name**

N/A

**14.3. Transport hazard class (es)**

N/A

**14.4. Packing group**

N/A

**14.5. Environmental hazards**

N/A

**14.6. Special precaution for users**

No additional information available.

**14.7. Transport in bulk according to Annex II MARPOL 73/78 and the IBC CODE**

N/A

**Section 15: REGULATORY INFORMATION****15.1. Safety, Health and environmental regulation/legislation specific for the substance or mixture**

Contains no substance on the REACH Candidate List

Contains no REACH Annex XIV substances.

Contains no REACH substances with Annex XVII restrictions.

**15.2. Chemical safety assessment**

No chemical safety assessment is required.

### Section 16: OTHER INFORMATION

According to Regulation (EU) 2015/830

Indication of changes: N/A

Abbreviations and acronyms:

CLP: Classification, Labeling and Packaging

CAS number: Chemical Abstracts Service number

Data sources:

<https://echa.europa.eu/information-on-chemicals/cl-inventory-database>

<https://echa.europa.eu/es/information-on-chemicals>

Regulation on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

#### 16.1. Legal disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The company shall not be held liable for any damage resulting from handling or from contact with the above product.

#### 16.2. Date of issue/Date of revision

03-02-2021

#### 16.3. Revision number

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