

# Material Safety Data Sheet(MSDS)

#### I. Product and Company Identification

| Product Name:           | Ac-D-Ala-OH   |
|-------------------------|---|
| Product Catalog Number: | A7508   |
| CAS Number:             | 19436-52-3  |
| Company:                | APExBIO Technology<br>7505 Fannin street, Suite 410,<br>Houston, TX 77054, USA<br>+1-832-696-8203 TEL<br>+1-832-641-3177 FAX<br>+1-855-577-7998 EMERGENCY PHONE |

| II. Composition/data on components:   |   |
|---------------------------------------|---|
|                                       |   |
| Formula:                              | C5H9NO3   |
| Molecular Weight :                    | 131.1   |
| III. Hazards identification:          |   |
|                                       |   |
| Emergency Overview                    |   |
| OSHA Hazards:                         | No Specific Hazard  |
|                                       |   |
| IV. First aid measures:               |   |
|                                       |   |
| After Inhalation:                     | If inhaled, remove to fresh air; if breathing is  |
|                                       | difficult, give oxygen; if breathing stops, give artificial respiration.                          |
| After skin contact:                   | Flush with copious amounts of water; remove   |
|                                       | contaminated clothing and shoes; call a physician;<br>Take victim to hospital immediately; call a |
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|                    | physician.   |
|--------------------|--|
| After eye contact: | Check for and remove contact lenses and flush<br>with copious amounts of water; assure adequate<br>flushing by separating the eyelids with fingers;<br>call a physician. |
| After swallowing:  | If swallowed, wash out mouth with copious amounts of water; call a physician   |

## V. Fire fighting measures:

| Conditions of flammability:                    | Not flammable or combustible.   |
|--|---|
| Suitable extinguishing media:                  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  |
| Special protective equipment for firefighters: | Wear self contained breathing apparatus for fire fighting if necessary.   |
| Hazardous combustion products:                 | Hazardous decomposition products formed under fire conditions Carbon oxides, nitrogen oxides (NOx), Sulphur oxides. |

## VI. Accidental release measures:

| Personal precautions:                                  | Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas.  |
|--|--|
| Environmental precautions:                             | Do not let product enter drains. Prevent further leakage or spillage if safe to do so.   |
| Methods and materials for containment and cleaning up: | Pick up and arrange disposal without creating<br>dust. Sweep up and shovel. Keep in suitable,<br>closed containers for disposal. |

## VII. Handling and storage:

| Precautions for s | safe handling:        | Avoid contact with skin and eyes. Avoid formation<br>of dust and aerosols.<br>Provide appropriate exhaust ventilation at places<br>where dust is formed. |
|-------------------|-----------------------|--|
| Conditions for sa | afe storage:          | Keep container tightly closed in a dry and   |
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well-ventilated place. Recommended storage temperature: Desiccate at -20 $^{\circ}\,$  C Keep in a dry place.

#### VIII. Exposure controls and personal protection:

| Personal protective equipment as follows: | Contains no substances with occupational exposure limit values.  |
|---|--|
| Respiratory protection:                   | Where risk assessment shows air-purifying<br>respirators are appropriate use a full-face particle<br>respirator type N99 (US) or type P2 (EN 143)<br>respirator cartridges as a backup to engineering<br>controls. If the respirator is the sole means of<br>protection, use a full-face supplied air respirator.<br>Use respirators and components tested and<br>approved under appropriate government<br>standards such as NIOSH (US) or CEN (EU). |
| Hand protection:                          | Handle with gloves. Gloves must be inspected<br>prior to use. Use proper glove removal technique<br>(without touching glove's outer surface) to avoid<br>skin contact with this product. Dispose of<br>contaminated gloves after use in accordance with<br>applicable laws and good laboratory practices.<br>Wash and dry hands.   |
| Eye protection:                           | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  |
| Skin and body protection:                 | Choose body protection in relation to its type, to<br>the concentration and amount of dangerous<br>substances, and to the specific work-place. The<br>type of protective equipment must be selected<br>according to the concentration and amount of<br>the dangerous substance at the specific<br>workplace.   |
| Hygiene measures:                         | General industrial hygiene practice.   |

#### IX. Stability and reactivity:

| Chemical stability:                 | Stable under recommended storage conditions. |
|-------------------------------------|--|
| Possibility of hazardous reactions: | No data available.                           |
| Conditions to avoid:                | No data available.                           |
| Materials to avoid:                 | Strong acids, Strong bases.                  |
|                                     |  |

| Carcinogenicity |  |
|-----------------|--|
| IARC:           | No component of this product present at levels<br>greater than or equal to 0.1% is identified as<br>probable, possible or confirmed human<br>carcinogen by IARC. |
| ACGIH:          | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.                     |
| NTP:            | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.                          |
| OSHA:           | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.                      |

| No data available.   |
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|  |
| Dispose of in accordance with prevailing country, federal, state and local regulations |
|  |
| This substance is considered to be non-hazardous for transport.                        |
|  |

X. Toxicological information:

| IMDG: | UN number: 3077<br>Class: 9<br>Packing group: III<br>EMS-No: F-A, S-F<br>Proper shipping name: Environmentally<br>hazardous substance, solid, n.o.s.<br>Marine pollutant: Marine pollutant |
|-------|--|
| IATA: | UN number: 3077<br>Class: 9<br>Packing group: III<br>Proper shipping name: Environmentally<br>hazardous substance, solid, n.o.s.   |

## XIV. Regulations:

| SARA 302 Components:                       | SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.  |
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| SARA 313 Components:                       | SARA 313: This material does not contain any<br>chemical components with known CAS numbers<br>that exceed the threshold (De Minimis) reporting<br>levels established by SARA Title III, Section 313. |
| SARA 311/312 Hazards:                      | Acute Health Hazard.   |
| Massachusetts Right To Know<br>Components: | No components are subject to the Massachusetts<br>Right to Know Act.   |
| Pennsylvania Right To Know<br>Components:  | No components are subject to the New Jersey<br>Right to Know Act.  |
| New Jersey Right To Know<br>Components:    | No components are subject to the New Jersey<br>Right to Know Act.  |
| California Prop. 65 Components:            | This product does not contain any chemicals<br>known to State of California to cause cancer, birth<br>defects, or any other reproductive harm.   |