

# Safety Data Sheet

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## 1. Product and company identification

**Product name** HyClone™ boost expression supplement a – ADCF

**Catalogue Number** SH31207 BULK

**Product type** Liquid.

**Original preparation date** 11/26/2025

**Date of issue/Date of revision** \*\*\*

**Date of previous issue** No previous validation

Relevant identified uses of the substance or mixture and uses advised against

For Further Manufacturing or Research Use. Not for Diagnostic or Therapeutic Use.

Supplier / Manufacturer

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Singapore 099253

## 2. Hazards identification

**GHS Classification** Not classified.

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment:  
9%

GHS label elements

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

Precautionary statements

**General**

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Other hazards which do not result in classification** None known.

### 3. Composition/information on ingredients

**Substance/mixture** Mixture

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### 4. First aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Skin contact</b>	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Eye contact</b>	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Ingestion</b>	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

#### Most important symptoms/effects, acute and delayed

##### Potential acute health effects

<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.

##### Short term exposure

<b>Potential delayed effects</b>	Not available.
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##### Over-exposure signs/symptoms

<b>Inhalation</b>	No specific data.
<b>Skin contact</b>	No specific data.
<b>Eye contact</b>	No specific data.
<b>Ingestion</b>	No specific data.

<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.
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<b>Notes to physician</b>	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
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### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Special protective actions for fire-fighters</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>Environmental precautions</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

#### Methods and materials for containment and cleaning up

<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
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## 7. Handling and storage

### Handling

<b>Protective measures</b>	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### Storage

<b>Conditions for safe storage</b>	Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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## 8. Exposure controls/personal protection

<b>Appropriate engineering controls</b>	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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Occupational exposure limits

### Biological exposure indices

No exposure indices known.

### Individual protection measures

<b>Respiratory protection</b>	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard of certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
<b>Hand protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
<b>Eye protection</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
<b>Skin protection</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

<b>Physical state</b>	Liquid.
<b>Color</b>	Not available.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	6.6 to 6.8
<b>Melting point/freezing point</b>	Not available.
<b>Boiling point or initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability</b>	Not available.
<b>Lower and upper explosive (flammable) limits</b>	Not available.
<b>Vapor pressure</b>	Not available.

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method

	water	17.5	2.3	
	glutamic acid	<0.000011	<0.0000015	OECD 104
Relative vapor density	Not available.			
Relative density	Not available.			
Solubility in water	Not available.			
Partition coefficient: n-octanol/water	Not applicable.			
Auto-ignition temperature	Not available.			
	<b>Ingredient name</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>
	glucose	500	932	
Decomposition temperature	Not available.			
Viscosity	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): Not available.			
<b><u>Particle characteristics</u></b>				
Median particle size	Not applicable.			
SADT	Not available.			
Viscosity	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): Not available.			
Flow time (ISO 2431)	Not available.			
Burning rate	Not applicable.			
Burning time	Not applicable.			

## 10. Stability and reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	No specific data.
Incompatible materials	No specific data.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

### Acute toxicity

Not available.

### Acute toxicity estimates

N/A

### Skin corrosion/irritation

Not available.

**Conclusion/Summary [Product]** Not available.

### Serious eye damage/eye irritation

Not available.

**Conclusion/Summary [Product]** Not available.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** Not available.

### Respiratory or skin sensitization

#### Skin

**Conclusion/Summary [Product]** Not available.

#### Respiratory

**Conclusion/Summary [Product]** Not available.

#### Germ cell mutagenicity

Not available.

**Conclusion/Summary [Product]** Not available.

#### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** Not available.

#### Reproductive toxicity

Not available.

**Conclusion/Summary [Product]** Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

## 12. Ecological information

#### Toxicity

Not available.

**Conclusion/Summary [Product]** Not available.

#### Persistence/degradability

Not available.

**Conclusion/Summary [Product]** Not available.

#### Bioaccumulative potential

Not available.

#### Mobility in soil

**Soil/Water partition coefficient** Not available.

**Mobility** Not available.

**Hazardous to the ozone layer** Not applicable.

**Other adverse effects** No known significant effects or critical hazards.

## 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. Transport information

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

### Special precautions for user

**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### Transport in bulk according to IMO instruments

Not available.

## 15. Regulatory information

### Fire Service Law

None of the components are listed.

**Fire Service Law - Obstructive materials** Not listed

### Industrial Safety and Health Act

Not applicable.

#### Ordinance on the Prevention of the Hazard due to Specified Chemical Substances

None of the components are listed.

**Organic solvents poisoning prevention** Not applicable.

#### Substance(s) requiring labelling

\* Any concentration shown as a range is to protect confidentiality.

#### Chemicals requiring notification

\* Any concentration shown as a range is to protect confidentiality.

**Chemical substances that cause skin disorders, etc. and other chemical substances that must be handled with impermeable protective equipment etc. based on special chemical regulations. (Article 594-2 Paragraph 1 of Ordinance on ISH)**

None of the components are listed.

#### Carcinogens based on Article 577-2 of the Ordinance on ISH

None of the components are listed.

#### Mutagen

None of the components are listed.

<b>Corrosive liquid</b>	Not listed
<b>ISHL Enforcement Order Appendix 1 - Dangerous Substances</b>	Not applicable.
<b>Harmful Substances Subject to Obtaining Permission for Manufacturing</b>	Not listed
<b>Harmful Substances, Prohibited for Manufacturing</b>	Not listed

**Chemical Substances Control Law (CSCL)**

Nickel(II) sulfate	0.00000007614	Priority assessment	148
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**Poisonous and Deleterious Substances**

None of the components are listed.

**Pollutant Release and Transfer Registers (PRTR)**

None of the components are listed.

<b>JSOH Carcinogen</b>	Not listed
<b>Law concerning prevention of pollution of the ocean</b>	Not available.

<b>Road law</b>	Not available.
<b>List of Specially Controlled Industrial Waste</b>	Not listed

**International regulations****Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**International lists****National inventory**

<b>Japan</b>	<b>Japan inventory (CSCL):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>United States</b>	Not determined.
<b>Canada inventory</b>	Not determined.
<b>China</b>	Not determined.

**16. Other information****History**

<b>Date of printing</b>	11/26/2025
<b>Date of issue/Date of revision</b>	***
<b>Date of previous issue</b>	No previous validation
<b>Version</b>	1
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ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
N/A = Not available  
UN = United Nations

**Procedure used to derive the classification**

Classification	Justification
Not classified.	

**References** Not available.

 Indicates information that has changed from previously issued version.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.  
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

\*\*\* draft only \*\*\*