

Safety Data Sheet acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

1 Identification

- **Product identifier**
- **Trade name: DHEA-S ELISA Monoclonal Antibody**
- **Other means of identification**
- **Article number:** 401169
- **Application of the substance / the mixture**
This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Cayman Chemical Co.
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108
USA
- **Information department:** Product safety department
- **Emergency telephone number:**
During normal opening times: +1 (734) 971-3335
US/CANADA: 800-424-9300
Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Specific target organ toxicity (repeated exposure) 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye damage 1

H318 Causes serious eye damage.



GHS07

Acute toxicity - oral 4

H302 Harmful if swallowed.

Skin irritation 2

H315 Causes skin irritation.

Specific target organ toxicity (single exposure) 3

H335 May cause respiratory irritation.

- **Label elements**
- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 1)

· Hazard pictograms



GHS05 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

Potassium phosphate dibasic
Sodium chloride
Albumin, bovine
Potassium phosphate, Monobasic

· Hazard statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection / face protection.
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
P302+P352 If on skin: Wash with plenty of water.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
P321 Specific treatment (see on this label).
P314 Get medical advice/attention if you feel unwell.
P330 Rinse mouth.
P362+P364 Take off contaminated clothing and wash it before reuse.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Information pertaining to particular dangers for man and environment:

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 3
Fire = 0
Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = *3
Fire = 0
Reactivity = 0

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 2)

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Classification according to (d)(1)(ii) of § 1910.1200**
The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.
- **Hazards not otherwise classified**
There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 7647-14-5 RTECS: VZ4725000	Sodium chloride	45.61%
CAS: 7758-11-4 RTECS: TC5580000	Potassium phosphate dibasic	25.92%
CAS: 9048-46-8 RTECS: AY9296000	Albumin, bovine	21.44%
CAS: 7778-77-0 RTECS: TC6615500	Potassium phosphate, Monobasic	6.26%

- **Other ingredients**

CAS: 194491-31-1	EDTA, tetrasodium salt hydrate	0.74%
CAS: 26628-22-8 RTECS: VY8050000	Sodium azide	0.023%
CAS: 7732-18-5 RTECS: ZC0110000	Water	0.007%
CAS: 7558-79-4 RTECS: WC4500000	Sodium phosphate, Dibasic	0.00001%
	Mouse IgG	0.00001%

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:** 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:** Immediately call a doctor.
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 3)

- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
A solid water stream may be inefficient.
- **Special hazards arising from the substance or mixture**
67-56-1 During heating or in case of fire poisonous gases are produced.
- **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:**
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Protective Action Criteria for Chemicals**

· PAC-1:

7758-11-4	Potassium phosphate dibasic	13 mg/m ³
7778-77-0	Potassium phosphate, Monobasic	9.6 mg/m ³
26628-22-8	Sodium azide	0.026 mg/m ³

· PAC-2:

7758-11-4	Potassium phosphate dibasic	140 mg/m ³
7778-77-0	Potassium phosphate, Monobasic	110 mg/m ³
26628-22-8	Sodium azide	0.29 mg/m ³

· PAC-3:

7758-11-4	Potassium phosphate dibasic	830 mg/m ³
7778-77-0	Potassium phosphate, Monobasic	630 mg/m ³
26628-22-8	Sodium azide	8.8 mg/m ³

· 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

- **Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 4)

- **Information about protection against explosions and fires:**
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** Store in accordance with information listed on the product insert.
- **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 receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components 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 that were valid during the creation were used as basis.
- **Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **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.
Store protective clothing separately.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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.

(Contd. on page 6)

US

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 5)

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Physical state

Solid

· Color:

According to product specification

· Odor:

Characteristic

· Storage Buffer

· Odor threshold:

Not determined.

· Formulation

· Melting point/Melting range:

Undetermined.

· Boiling point/Boiling range:

Undetermined.

· Flammability:

Not determined.

· Explosion limits:

· Lower:

Not determined.

· Upper:

Not determined.

· Flash point:

Not applicable.

· Decomposition temperature:

Not determined.

· pH-value:

Not applicable.

· Viscosity:

· Kinematic:

Not applicable.

· SOLUBILITY

· Dynamic:

Not applicable.

· Solubility in / Miscibility with

· Water:

Soluble.

· Partition coefficient (n-octanol/water):

Not determined.

· Vapor pressure:

Not applicable.

· Vapor pressure:

· Density:

Not determined.

· Relative density

Not determined.

· Vapor density

Not applicable.

· Particle characteristics

Not determined.

· Other information

· Appearance:

· Form:

Lyophilized solid

· Important information on protection of health and environment, and on safety.

· Ignition temperature:

Product is not selfigniting.

· Danger of explosion:

Product does not present an explosion hazard.

· Solvent content:

· Water:

0.0 %

· VOC content:

0.00 %

· Solids content:

100.0 %

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 6)

- **Change in condition**
- **Evaporation rate** Not applicable.

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 that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	1,056 mg/kg
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7647-14-5 Sodium chloride

Oral	LDLO	1,000 mg/kg (man)
	TDLO	650 mg/kg (man)
	LD50	4,000 mg/kg (mouse) 3,000 mg/kg (rat)
Inhalative	LD50	4 g/kg (mouse)
	LC50	320 mg/m ³ (mouse)
	TCLO	0.63 mg/m ³ (human)
Irritation of skin	LCLO	29,300 mg/m ³ /7h (mouse)
	Irritation	500 mg/24h (rabbit) mild
Irritation of eyes	Irritation	100 mg/24h (rabbit) moderate
	Intraperitoneal LD50	2,602 mg/kg (mouse)
	Subcutaneous LD50	31.6 mg/kg (rat)
	Intravenous LD50	59.5 mg/kg (rat)
	Data	15 mg/3D (human) mild
	Subcutaneous LD50	3 g/kg (mouse)

9048-46-8 Albumin, bovine

	Intraperitoneal TDLO	0.2 pph (mouse)
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7778-77-0 Potassium phosphate, Monobasic

Oral	LDLO	4,640 mg/kg (rat)
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(Contd. on page 8)

US

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 7)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant
- **Interactive effects** No interactive effects between components are known.
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.
- **NTP (National Toxicology Program)**
None of the ingredients is listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.
- **Alternative sources for toxicological information**
No non-standard sources for toxicological information where used.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (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 bodies of water or drainage ditch undiluted or unneutralized.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 9)

US

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 8)

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, IMDG, IATA	not regulated
· UN proper shipping name	
· DOT, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA	
· Class	not regulated
· Packing group	
· DOT, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· IATA	
· Remarks:	When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.
· Special precautions for user	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

26628-22-8	Sodium azide
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· **Section 313 (Specific toxic chemical listings):**

26628-22-8	Sodium azide
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· **TSCA (Toxic Substances Control Act):**

7647-14-5	Sodium chloride	ACTIVE
7758-11-4	Potassium phosphate dibasic	ACTIVE
9048-46-8	Albumin, bovine	ACTIVE
7778-77-0	Potassium phosphate, Monobasic	ACTIVE
26628-22-8	Sodium azide	ACTIVE
7732-18-5	Water	ACTIVE

(Contd. on page 10)

-US-

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 02/04/2026

Revision date 02/04/2026

Trade name: DHEA-S ELISA Monoclonal Antibody

(Contd. from page 9)

7558-79-4	Sodium phosphate, Dibasic	ACTIVE
· Hazardous Air Pollutants		
None of the ingredients is listed.		
· Chemicals known to cause cancer:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients is listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value)		
26628-22-8	Sodium azide	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.		

16 Other information

- **Department issuing SDS:** Environment protection department.
- **Contact:** -
- **Date of preparation** 02/04/2026
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - 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)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - 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
 - NIOSH: National Institute for Occupational Safety
 - OSHA: Occupational Safety & Health
 - TLV: Threshold Limit Value
 - PEL: Permissible Exposure Limit
 - REL: Recommended Exposure Limit
 - Acute toxicity - oral 4: Acute toxicity – Category 4
 - Skin irritation 2: Skin corrosion/irritation – Category 2
 - Eye damage 1: Serious eye damage/eye irritation – Category 1
 - Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3
 - Specific target organ toxicity (repeated exposure) 2: Specific target organ toxicity (repeated exposure) – Category 2