

# Safety Data Sheet acc. to OSHA HCS

Date of issue: 07/17/2026

Revision date 07/17/2026

## 1 Identification

- **Product identifier**
- **Trade name: Anti-CD11b PE Test reagent**
- **Synonym** Anti-CD11b PE
- **Other means of identification**
- **Article number:** 601742, 021718
- **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**



GHS07

Acute toxicity - oral 4 H302 Harmful if swallowed.

Acute toxicity - dermal 4 H312 Harmful in contact with skin.

Eye irritation 2A H319 Causes serious eye irritation.

Aquatic Acute 3 H402 Harmful to aquatic life.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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



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- **Signal word** Warning

- **Hazard-determining components of labeling:**

Sodium chloride  
Sodium azide  
Albumin, bovine  
Potassium phosphate, Monobasic

- **Hazard statements**

H302+H312 Harmful if swallowed or in contact with skin.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
  
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.  
P302+P352 If on skin: Wash with plenty of water.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
  
P321 Specific treatment (see on this label).  
P330 Rinse mouth.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
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 = 2  
Fire = 0  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = \*2  
Fire = 0  
Reactivity = 0

- **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.

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## 3 Composition/information on ingredients

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

- **Dangerous components:**

|                                     |                                |           |
|-------------------------------------|--------------------------------|-----------|
| CAS: 7647-14-5<br>RTECS: VZ4725000  | Sodium chloride                | 1–5%      |
| CAS: 9048-46-8<br>RTECS: AY9296000  | Albumin, bovine                | 1–5%      |
| CAS: 7778-77-0<br>RTECS: TC6615500  | Potassium phosphate, Monobasic | 1%        |
| CAS: 26628-22-8<br>RTECS: VY8050000 | Sodium azide                   | ≥0.25–<1% |

- **Other ingredients**

|                                    |                              |        |
|------------------------------------|------------------------------|--------|
| CAS: 7732-18-5<br>RTECS: ZC0110000 | Water                        | 80–99% |
| CAS: 7558-79-4<br>RTECS: WC4500000 | Sodium phosphate, Dibasic    | 1–5%   |
| CAS: 7447-40-7<br>RTECS: TS8050000 | Potassium chloride           | 0–1%   |
|                                    | Rat anti-CD11b Antibody - PE | 0–1%   |

## 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:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a 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:**  
Use fire fighting measures that suit the environment.  
A solid water stream may be inefficient.
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
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).  
Dispose contaminated material as waste according to section 13.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

|            |                                |             |
|------------|--------------------------------|-------------|
| 7778-77-0  | Potassium phosphate, Monobasic | 9.6 mg/m3   |
| 26628-22-8 | Sodium azide                   | 0.026 mg/m3 |

- **PAC-2:**

|            |                                |            |
|------------|--------------------------------|------------|
| 7778-77-0  | Potassium phosphate, Monobasic | 110 mg/m3  |
| 26628-22-8 | Sodium azide                   | 0.29 mg/m3 |

- **PAC-3:**

|            |                                |           |
|------------|--------------------------------|-----------|
| 7778-77-0  | Potassium phosphate, Monobasic | 630 mg/m3 |
| 26628-22-8 | Sodium azide                   | 8.8 mg/m3 |

- **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**  
No special precautions are necessary if used correctly.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Avoid prolonged or repeated exposure.  
Keep away from sources of ignition.  
Take precautionary measures against static discharge.re.
- **Information about protection against explosions and fires:** No special measures required.
- **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.

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## 8 Exposure controls/personal protection

- Control parameters

- Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

### 26628-22-8 Sodium azide

|     |                                                                                                                   |
|-----|-------------------------------------------------------------------------------------------------------------------|
| REL | Ceiling limit value: 0.3** mg/m <sup>3</sup> , 0.1* ppm<br>*as HN <sub>3</sub> ; **as NaN <sub>3</sub> ; Skin     |
| TLV | Ceiling limit value: 0.29** mg/m <sup>3</sup> , 0.11* ppm<br>*as HN <sub>3</sub> vapor **as NaN <sub>3</sub> , A4 |

- 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.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- Breathing equipment:** Not required

- 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.

- Eye protection:**



Tightly sealed goggles

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## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

|                                            |                     |
|--------------------------------------------|---------------------|
| · General Information                      |                     |
| · Physical state                           | Liquid              |
| · Color:                                   | Colorless           |
| · Odor:                                    | Odorless            |
| · Structural Formula                       | H <sub>2</sub> O    |
| · Molecular Weight                         | 18 g/mol            |
| · Storage Buffer                           |                     |
| · Odor threshold:                          | Not determined      |
| · Formulation                              |                     |
| · Melting point/Melting range:             | Undetermined        |
| · Boiling point/Boiling range:             | 100 °C (212 °F)     |
| · Flammability:                            | Not applicable      |
| · Explosion limits:                        |                     |
| · Lower:                                   | Not determined      |
| · Upper:                                   | Not determined      |
| · Flash point:                             | Not applicable      |
| · Decomposition temperature:               | Not determined      |
| · pH-value:                                | Not determined      |
| · Viscosity:                               |                     |
| · Kinematic:                               | Not determined      |
| · SOLUBILITY                               |                     |
| · Dynamic at 20 °C (68 °F):                | 0.952 mPas          |
| · Solubility in / Miscibility with         |                     |
| · Water:                                   | Fully miscible.     |
| · Partition coefficient (n-octanol/water): | Not determined      |
| · Vapor pressure at 20 °C (68 °F):         | 23 hPa (17.3 mm Hg) |
| · Vapor pressure:                          |                     |
| · Density:                                 | Not determined      |
| · Relative density                         | Not determined      |
| · Vapor density                            | Not determined      |
| · Particle characteristics                 | Not applicable      |

### · Other information

|                                                                                 |                                               |
|---------------------------------------------------------------------------------|-----------------------------------------------|
| · Appearance:                                                                   |                                               |
| · Form:                                                                         | Fluid                                         |
| · 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:                                                                        | 80–99 %                                       |
| · VOC content:                                                                  | 0.00 %                                        |
|                                                                                 | 0.0 g/l / 0.00 lb/gal                         |
| · Solids content:                                                               | 2.1 %                                         |
| · Change in condition                                                           |                                               |
| · Evaporation rate                                                              | Not determined                                |

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## 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 | 1,811–28,261 mg/kg    |
| Dermal | LD50 | ≥2,000 mg/kg (rabbit) |

### 7647-14-5 Sodium chloride

|                    |                      |                                          |
|--------------------|----------------------|------------------------------------------|
| Oral               | LDLO                 | 1,000 mg/kg (man)                        |
|                    | TDLO                 | 650 mg/kg (man)                          |
|                    | LD50                 | 4,000 mg/kg (mouse)<br>3,000 mg/kg (rat) |
| Dermal             | LD50                 | 4 g/kg (mouse)                           |
|                    | LD50                 | >10,000 mg/kg (rabbit)                   |
|                    | LC50                 | 320 mg/m <sup>3</sup> (mouse)            |
| Inhalative         | TCLO                 | 0.63 mg/m <sup>3</sup> (human)           |
|                    | LCLO                 | 29,300 mg/m <sup>3</sup> /7h (mouse)     |
|                    | Irritation           | 500 mg/24h (rabbit)<br>mild              |
| Irritation of skin | Irritation           | 100 mg/24h (rabbit)<br>moderate          |
|                    | Intraperitoneal LD50 | 2,602 mg/kg (mouse)                      |
|                    | Subcutaneous LD50    | 31.6 mg/kg (rat)                         |
| Irritation of eyes | Intravenous LD50     | 59.5 mg/kg (rat)                         |
|                    | Data                 | 15 mg/3D (human)<br>mild                 |
|                    | Subcutaneous LD50    | 3 g/kg (mouse)                           |

### 9048-46-8 Albumin, bovine

|  |                      |                 |
|--|----------------------|-----------------|
|  | Intraperitoneal TDLO | 0.2 pph (mouse) |
|--|----------------------|-----------------|

### 7778-77-0 Potassium phosphate, Monobasic

|      |      |                   |
|------|------|-------------------|
| Oral | LDLO | 4,640 mg/kg (rat) |
|      | LD50 | 2,000 mg/kg (rat) |

### 26628-22-8 Sodium azide

|      |      |                |
|------|------|----------------|
| Oral | LDLO | 27 mg/kg (rat) |
|------|------|----------------|

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|            |                      |                            |
|------------|----------------------|----------------------------|
| Dermal     | TDLO                 | 3 mg/kg (woman)            |
|            | LD50                 | 27 mg/kg (rat)             |
|            | Subcutaneous LD50    | 45,100 µg/kg (rat)         |
|            | LD50                 | 50 mg/kg (rat)             |
| Inhalative |                      | 20 mg/kg (rabbit)          |
|            | LC50                 | 37 mg/m <sup>3</sup> (rat) |
|            | Subcutaneous LD50    | 45,100 µg/kg (rat)         |
|            | Interperitoneal LDLO | 30 mg/kg (rat)             |
|            | Intraperitoneal LD50 | 28 mg/kg (mouse)           |
|            | Subcutaneous LD50    | 45 mg/kg (rat)             |
|            | Data                 | 5,500 mg/kg (mouse)        |

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** Irritating effect.

- **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**

- **Remark:** Harmful to fish

- **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.

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Harmful to aquatic organisms

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## 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.
- **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
- 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

**TSCA (Toxic Substances Control Act):**

7732-18-5 Water

ACTIVE

7558-79-4 Sodium phosphate, Dibasic

ACTIVE

7647-14-5 Sodium chloride

ACTIVE

9048-46-8 Albumin, bovine

ACTIVE

7447-40-7 Potassium chloride

ACTIVE

7778-77-0 Potassium phosphate, Monobasic

ACTIVE

26628-22-8 Sodium azide

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 previous version** 05/27/2026

• **Date of preparation** 07/17/2026

**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

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NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute toxicity - oral 4: Acute toxicity – Category 4

Eye irritation 2A: Serious eye damage/eye irritation – Category 2A

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· **\* Data compared to the previous version altered.**

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