1 Identification

· Product identifier
  · Trade name: 11-dehydro Thromboxane B2 Monoclonal Antibody
  · Article number: 419512
· Application of the substance / the mixture
  This product is for research use - Not for human or veterinary diagnostic or therapeutic use. It is the responsibility of the purchaser to determine suitability for other applications.

· 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
  STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

  GHS05 Corrosion
  Eye Dam. 1 H318 Causes serious eye damage.

  GHS07
  Acute Tox. 4 H302 Harmful if swallowed.
  Skin Irrit. 2 H315 Causes skin irritation.
  STOT SE 3 H335 May cause respiratory irritation.
Trade name: 11-dehydro Thromboxane B2 Monoclonal Antibody

· Label elements
  · GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms
    
    ![GHS05](image1) ![GHS07](image2) ![GHS08](image3)

· Signal word Danger

· Hazard-determining components of labeling:
  Potassium phosphate dibasic
  Sodium chloride
  Potassium phosphate, Monobasic
  Albumin, bovine

· 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.
  P312 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.

· 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)
Trade name: 11-dehydro Thromboxane B2 Monoclonal Antibody

Other hazards
Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

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 57.36%
  - CAS: 7758-11-4
    - RTECS: TC5580000
    - Potassium phosphate dibasic 31.51%
  - CAS: 7778-77-0
    - RTECS: TC6615500
    - Potassium phosphate, Monobasic 7.63%
  - CAS: 9048-46-8
    - RTECS: AY9296000
    - Albumin, bovine 2.37%
  - CAS: 26628-22-8
    - RTECS: VY8050000
    - Sodium azide 0.24%
  - Other ingredients
    - 194491-31-1 EDTA, tetrasodium salt hydrate 0.88%
    - 11-dehydro Thromboxane B2 Monoclonal Antibody 0.01%

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.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed
  - May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.
- 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.
Trade name: 11-dehydro Thromboxane B2 Monoclonal Antibody

· 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 item 13.
    Ensure adequate ventilation.
· 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.
· Protective Action Criteria for Chemicals
  · PAC-1:
    | Chemical                  | Concentration |
    |---------------------------|---------------|
    | 7758-11-4 Potassium phosphate dibasic | 13 mg/m³     |
    | 7778-77-0 Potassium phosphate, Monobasic | 9.6 mg/m³   |
    | 26628-22-8 Sodium azide          | 0.026 mg/m³  |
  · PAC-2:
    | Chemical                  | Concentration |
    |---------------------------|---------------|
    | 7758-11-4 Potassium phosphate dibasic | 140 mg/m³    |
    | 7778-77-0 Potassium phosphate, Monobasic | 110 mg/m³   |
    | 26628-22-8 Sodium azide          | 0.29 mg/m³   |
  · PAC-3:
    | Chemical                  | Concentration |
    |---------------------------|---------------|
    | 7758-11-4 Potassium phosphate dibasic | 830 mg/m³    |
    | 7778-77-0 Potassium phosphate, Monobasic | 630 mg/m³   |
    | 26628-22-8 Sodium azide          | 5.3 mg/m³    |

7 Handling and storage

· Handling:
  · Precautions for safe handling
    Thorough dedusting.
    Ensure good ventilation/exhaustion at the workplace.
  · Information about protection against explosions and fires:
    Keep respiratory protective device available.
· Conditions for safe storage, including any incompatibilities
· Storage:
  · 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.
Trade name: 11-dehydro Thromboxane B2 Monoclonal Antibody

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

· 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.

<table>
<thead>
<tr>
<th>26628-22-8 Sodium azide</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL Ceiling limit value: 0.3** mg/m³, 0.1* ppm</td>
</tr>
<tr>
<td>*as HN3; **as NaN3; Skin</td>
</tr>
<tr>
<td>TLV Ceiling limit value: 0.29** mg/m³, 0.11* ppm</td>
</tr>
<tr>
<td>*as HN3 vapor **as NaN3, A4</td>
</tr>
</tbody>
</table>

· Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls
  · 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.
## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Lyophilized powder
      - **Color:** Not determined.
      - **Odor:** Characteristic
      - **Odor threshold:** Not determined.
  - **pH-value:** Not applicable.
  - **Change in condition**
    - **Melting point/Melting range:** Undetermined.
    - **Boiling point/Boiling range:** Undetermined.
  - **Flash point:** Not applicable.
  - **Flammability (solid, gaseous):** Not determined.
  - **Decomposition temperature:** Not determined.
  - **Auto igniting:** Product is not selfigniting.
  - **Danger of explosion:** Product does not present an explosion hazard.
  - **Explosion limits:**
    - **Lower:** Not determined.
    - **Upper:** Not determined.
  - **Vapor pressure:** Not applicable.
  - **Density:** Not determined.
  - **Relative density:** Not determined.
  - **Vapor density:** Not applicable.
  - **Evaporation rate:** Not applicable.
  - **Solubility in / Miscibility with Water:** Soluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - **Dynamic:** Not applicable.
  - **Kinematic:** Not applicable.
- **Solvent content:** 0.00 %
- **Other information** No further relevant information available.
10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**: No decomposition if used according to specifications.
- **Thermal decomposition / conditions to be avoided**: 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**: 

<table>
<thead>
<tr>
<th>ATE (Acute Toxicity Estimate)</th>
<th>Oral</th>
<th>LD50</th>
<th>1,305 mg/kg</th>
</tr>
</thead>
</table>

### 7647-14-5 Sodium chloride

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>1,000 mg/kg (man)</td>
</tr>
<tr>
<td>Oral TDLO</td>
<td>650 ml/kg (man)</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>4,000 mg/kg (mouse)</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>3,000 mg/kg (rat)</td>
</tr>
<tr>
<td>Inhalative LC50</td>
<td>320 mg/m³ (mouse)</td>
</tr>
<tr>
<td>Inhalative Tc50</td>
<td>0.63 mg/m³ (hmn)</td>
</tr>
<tr>
<td>Inhalative LCLO</td>
<td>29,300 mg/m³/7h (mouse)</td>
</tr>
<tr>
<td>Irritation of skin</td>
<td>Irrigation 500 mg/24h (rabbit)</td>
</tr>
<tr>
<td>Irritation of eyes</td>
<td>Irrigation 100 mg/24h (rabbit)</td>
</tr>
<tr>
<td>Intraperitoneal LD50</td>
<td>2,602 mg/kg (mouse)</td>
</tr>
<tr>
<td>Subcutaneous LD50</td>
<td>31.6 mg/kg (rat)</td>
</tr>
<tr>
<td>Intravenous LD50</td>
<td>59.5 mg/kg (rat)</td>
</tr>
<tr>
<td>Data</td>
<td>15 mg/3D (hmn)</td>
</tr>
<tr>
<td>Subcutaneous LD50</td>
<td>3 g/kg (mouse)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>4,640 mg/kg (rat)</td>
</tr>
</tbody>
</table>

### 9048-46-8 Albumin, bovine

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intraperitoneal TDLO</td>
<td>0.2 pph (mouse)</td>
</tr>
</tbody>
</table>

### 26628-22-8 Sodium azide

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>27 mg/kg (rat)</td>
</tr>
<tr>
<td>Oral TDLO</td>
<td>3 ml/kg (wmn)</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>27 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal Subcutaneous LD50</td>
<td>45,100 µg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>50 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>20 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>
Trade name: 11-dehydro Thromboxane B2 Monoclonal Antibody

<table>
<thead>
<tr>
<th>Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalative LC50</td>
<td>37 mg/m³ (rat)</td>
</tr>
<tr>
<td>Subcutaneous LD50</td>
<td>45,100 µg/kg (rat)</td>
</tr>
<tr>
<td>Interperitoneal LDLO</td>
<td>30 mg/kg (rat)</td>
</tr>
<tr>
<td>Intraperitoneal LD50</td>
<td>28 mg/kg (mouse)</td>
</tr>
<tr>
<td>Subcutaneous LD50 Data</td>
<td>45 mg/kg (rat)</td>
</tr>
<tr>
<td>Data</td>
<td>5,500 mg/kg (mouse)</td>
</tr>
</tbody>
</table>

- **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
- **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.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.
  - **Behavior in environmental systems:**
    - **Bioaccumulative potential** No further relevant information available.
    - **Mobility in soil** No further relevant information available.
  - **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.
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
    - **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
  - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 9)
Trade name: 11-dehydro Thromboxane B2 Monoclonal Antibody

- 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.

- **Special precautions for user**
  - Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - 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

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

- **TSCA (Toxic Substances Control Act):**
  - 7647-14-5 Sodium chloride
  - 7758-11-4 Potassium phosphate dibasic
  - 7778-77-0 Potassium phosphate, Monobasic
  - 9048-46-8 Albumin, bovine
  - 26628-22-8 Sodium azide

- **Hazardous Air Pollutants**
  - None of the ingredients is listed.

- **Proposition 65**

  - **Chemicals known to cause cancer:**
    - None of the ingredients is listed.
Trade name: 11-dehydro Thromboxane B2 Monoclonal Antibody

- **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

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- **Department issuing SDS:** Environment protection department.
- **Contact:** -
- **Date of preparation / last revision** 10/11/2021 / -
- **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)
  - 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 Tox. 4: Acute toxicity – Category 4
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  - STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

- **Data compared to the previous version altered.**