

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/28/2020

Revision date 06/28/2020

## 1 Identification

- **Product identifier**
- **Trade name:** **COBRA1 Monoclonal Antibody**
- **Synonym**  
Cofactor of BRCA1; Negative Elongation Factor B; Negative Elongation Factor Complex Member B; Negative Elongation Factor Protein B; NELF-B
- **Article number:** 29256
- **CAS Number:**  
7732-18-5
- **EC number:**  
231-791-2
- **Application of the substance / the mixture** For research use only - not for human or veterinary 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**  
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 substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** None
- **Signal word** None
- **Hazard statements**  
Harmful to aquatic life.  
Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
Avoid release to the environment.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 1  
Reactivity = 0

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

|            |   |                |
|------------|---|----------------|
| HEALTH     | 0 | Health = 0     |
| FIRE       | 1 | Fire = 1       |
| REACTIVITY | 0 | Reactivity = 0 |

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

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
7732-18-5 Water
- **Identification number(s)**
- **EC number:** 231-791-2

- **Dangerous components:**

|                                     |              |      |
|-------------------------------------|--------------|------|
| CAS: 26628-22-8<br>RTECS: VY8050000 | Sodium azide | 0.9% |
|-------------------------------------|--------------|------|

- **Other ingredients**

|                                     |                                  |        |
|-------------------------------------|----------------------------------|--------|
| CAS: 7647-14-5<br>RTECS: VZ4725000  | Sodium chloride                  | 0.85%  |
| CAS: 7558-79-4<br>RTECS: WC4500000  | Sodium phosphate, Dibasic        | 0.106% |
| CAS: 9048-46-8<br>RTECS: MT6446000  | Albumin, bovine                  | 0.1%   |
|                                     | CB2 Receptor Polyclonal Antibody | 0–0.1% |
| CAS: 7778-77-0<br>RTECS: TC6615500  | Potassium phosphate, Monobasic   | 0.03%  |
| CAS: 26628-22-8<br>RTECS: VY8050000 | Sodium azide                     | 0.02%  |

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult 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.

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## 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.
- **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 item 13.
- **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:**

|            |                                |                         |
|------------|--------------------------------|-------------------------|
| 26628-22-8 | Sodium azide                   | 0.026 mg/m <sup>3</sup> |
| 7778-77-0  | Potassium phosphate, Monobasic | 9.6 mg/m <sup>3</sup>   |

- **PAC-2:**

|            |                                |                        |
|------------|--------------------------------|------------------------|
| 26628-22-8 | Sodium azide                   | 0.29 mg/m <sup>3</sup> |
| 7778-77-0  | Potassium phosphate, Monobasic | 110 mg/m <sup>3</sup>  |

- **PAC-3:**

|            |                                |                       |
|------------|--------------------------------|-----------------------|
| 26628-22-8 | Sodium azide                   | 5.3 mg/m <sup>3</sup> |
| 7778-77-0  | Potassium phosphate, Monobasic | 630 mg/m <sup>3</sup> |

## 7 Handling and storage

- **Handling:**
- **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**  
Keep container tightly closed.  
Store in accordance with information listed on the product insert.

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- **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:** None.
- **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:**

### 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>  |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
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.
- **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:** Goggles recommended during refilling.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Protein G-purified mouse monoclonal antibody

**Color:** Not determined.

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

**Melting point/Melting range:** 0 °C (32 °F)

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|                                                   |                                                             |
|---------------------------------------------------|-------------------------------------------------------------|
| <b>Boiling point/Boiling range:</b>               | 100 °C (212 °F)                                             |
| · <b>Flash point:</b>                             | Not applicable.                                             |
| · <b>Flammability (solid, gaseous):</b>           | Not applicable.                                             |
| · <b>Decomposition temperature:</b>               | Not determined.                                             |
| · <b>Auto igniting:</b>                           | Not determined.                                             |
| · <b>Danger of explosion:</b>                     | Product does not present an explosion hazard.               |
| · <b>Explosion limits:</b>                        |                                                             |
| <b>Lower:</b>                                     | Not determined.                                             |
| <b>Upper:</b>                                     | Not determined.                                             |
| · <b>Vapor pressure at 20 °C (68 °F):</b>         | 23 hPa (17.3 mm Hg)                                         |
| · <b>Density at 20 °C (68 °F):</b>                | 0.99795–1.00205 g/cm <sup>3</sup> (8.32789–8.36211 lbs/gal) |
| · <b>Relative density</b>                         | Not determined.                                             |
| · <b>Vapor density</b>                            | Not determined.                                             |
| · <b>Evaporation rate</b>                         | Not determined.                                             |
| · <b>Solubility in / Miscibility with Water:</b>  | Fully miscible.                                             |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                                             |
| · <b>Viscosity:</b>                               |                                                             |
| <b>Dynamic at 20 °C (68 °F):</b>                  | 0.952 mPas                                                  |
| <b>Kinematic:</b>                                 | Not determined.                                             |
| <b>Water:</b>                                     | 98.1 %                                                      |
| <b>VOC content:</b>                               | 0.00 %                                                      |
|                                                   | 0.0 g/l / 0.00 lb/gal                                       |
| · <b>Solids content:</b>                          | >1.1 %                                                      |
| · <b>Other information</b>                        | No further relevant information available.                  |

## 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 | 3,000 mg/kg |
|------|------|-------------|

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|                                |                      |                            |
|--------------------------------|----------------------|----------------------------|
| Dermal                         | LD50                 | 2,222 mg/kg                |
| <b>26628-22-8 Sodium azide</b> |                      |                            |
| Oral                           | LDLO                 | 27 mg/kg (rat)             |
|                                | TDLO                 | 3 ml/kg (wmn)              |
|                                | LD50                 | 27 mg/kg (rat)             |
| Dermal                         | 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:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **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.
- **Ecotoxic 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.  
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· **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.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- |                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| · <b>UN-Number</b>                                                               |                 |
| · <b>DOT, IMDG, IATA</b>                                                         | not regulated   |
| · <b>UN proper shipping name</b>                                                 |                 |
| · <b>DOT, IMDG, IATA</b>                                                         | not regulated   |
| · <b>Transport hazard class(es)</b>                                              |                 |
| · <b>DOT, ADN, IMDG, IATA</b>                                                    |                 |
| · <b>Class</b>                                                                   | not regulated   |
| · <b>Packing group</b>                                                           |                 |
| · <b>DOT, IMDG, IATA</b>                                                         | not regulated   |
| · <b>Environmental hazards:</b>                                                  | Not applicable. |
| · <b>Special precautions for user</b>                                            | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>                                                  | 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 |
|------------|--------------|

· **Section 313 (Specific toxic chemical listings):**

|            |              |
|------------|--------------|
| 26628-22-8 | Sodium azide |
|------------|--------------|

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

|            |                                |        |
|------------|--------------------------------|--------|
| 7732-18-5  | Water                          | ACTIVE |
| 26628-22-8 | Sodium azide                   | ACTIVE |
| 7647-14-5  | Sodium chloride                | ACTIVE |
| 7558-79-4  | Sodium phosphate, Dibasic      | ACTIVE |
| 7778-77-0  | Potassium phosphate, Monobasic | ACTIVE |

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- **Hazardous Air Pollutants**

None of the ingredients is listed.

- **Proposition 65**

- **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 established by ACGIH)**

26628-22-8 | Sodium azide

A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements**

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

- **Hazard pictograms** None

- **Signal word** None

- **Hazard statements**

Harmful to aquatic life.

Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

Avoid release to the environment.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.

- **Contact:** -

- **Date of preparation / last revision** 06/28/2020 / -

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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

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vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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.**

US