



Product Name: CD28 Antibody (PV-1) [Biotin]

Reviewed on: March 18, 2015

### 1. Identification of Substance:

- **Other means of identification:** Catalog Number: NBP1-27934  
Components: Sodium Azide
- **GHS product identifier:** CD28 Antibody (PV-1) [Biotin]
- **Application of the substance / the preparation:** For Research Use Only
- **Manufacturer/Supplier:**  
Novus Biologicals, LLC.  
8100 Southpark Way, A-8  
Littleton, CO 80120  
USA  
1-888-506-6887
- **For product related questions call:** 1-888-506-6887. In Europe call: +44(0)1235-529449.
- **Emergency information:** In case of a chemical emergency, spill, leak, fire, or accident call **CHEMTREC** at 1-800-424-9300 (US or Canada). Outside USA and Canada: +1 703-527-3887 (collect calls accepted).

### 2. Hazards Identification:

- **Classification: Regulation (EC) No. 1272/2008 [CLP/GHS]: Sodium Azide**  
Acute Tox. 2, Oral  
Aquatic Acute 1  
Aquatic Chronic 1
- 

- **Signal Word:** DANGER
  - **Hazard Statement(s):** H300: Fatal if swallowed. H410 Harmful to aquatic life with long lasting effects.
  - **Precautionary Statement(s):** P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P273: Avoid release to the environment.
  - **Response:**  
IF SWALLOWED: Immediately call a POISON CONTROL Center or physician. See specific treatment in this SDS. Rinse mouth.  
IF ON SKIN: Remove immediately all contaminated clothing. Wash contaminated clothing before reuse. Call a POISON CONTROL center or physician.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CONTROL center or physician.  
COLLECT SPILLAGE.
  - **Classification according to Directive 67/548/EEC:** T+: Very toxic. N: Dangerous for the environment.
  - **R-phrases:** R28: Very toxic if swallowed. R32: Contact with acids liberates very toxic gas. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - **S-phrases:** S1/2: Keep locked up and out of reach of children. S28: After contact with skin, wash immediately with plenty of water. S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). S60: This material and its container must be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/safety data sheet.
  - **Other Hazards:** Contact with acids liberates very toxic gas.

### 3. Information on Ingredients:

Contains	EINECS	CAS No.	Content %
Sodium Azide	247-852-1	26628-22-8	0.1% to 0.5%

### 4. First Aid Measures:

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly. Generally the product does not irritate the skin.

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- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Rinse mouth with water. Immediately seek medical attention and appropriate follow-up.

### 5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Any means suitable for extinguishing the surrounding area.
- **Specific hazards arising from the chemical:** Dangerous decomposition is not anticipated.
- **Protective equipment:** Wear appropriate protective clothing and a self-contained breathing apparatus if necessary.

### 6. Accidental Release Measures:

- **Person-related safety precautions:** Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
- **Measures for environmental protection:** Prevent further spillage or leakage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- **Measures for containment and cleaning:** Absorb liquid components with inert liquid-binding material. Pick up mechanically. Dispose contaminated material as waste according to item 13.

### 7. Handling and Storage:

- **Precautions for safe handling:** Store in a well ventilated place. Keep container tightly closed.
- **Information about protection against explosions and fires:** Normal measures for preventive fire protection.
- **Conditions for safe storage:** Keep locked up. Store in a cool place. Keep container tightly closed in a dry and well ventilated place.

### 8. Exposure Controls and Personal Protection:

- **Components: Sodium Azide**  
UK. EH40 WEL- Workplace Exposure Limits: Value: STEL 0.3 mg/m<sup>3</sup> (15 min. ). TWA 0.1 mg/m<sup>3</sup>; UK.
- **Appropriate engineering controls:** Follow usual standard laboratory practices. The following personal protection is recommended:
  - Respiratory Protection:** Respiratory Protection not required. For nuisance exposures use respirators and components approved under appropriate government standards.
  - Hand Protection:** Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
  - Eye Protection:** Use equipment for eye protection tested and approved under appropriate government standards.
  - Skin and Body Protection:** Use impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
  - Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

### 9. Physical and Chemical Properties:

- **Appearance:** Lyophilized white powder or clear liquid.
- **Odor:** Little to none
- **Odor threshold:** Not available
- **pH:** Not available
- **Melting point/freezing point:** Not available.
- **Boiling point/Boiling range:** Not available.
- **Flash point:** Not available.
- **Evaporation rate:** Undetermined.
- **Flammability:** Not available.
- **Upper/lower flammability or explosive limits:** Not available.
- **Vapor pressure/density:** Not available.
- **Relative Density:** Not available.
- **Solubility in/Miscibility with Water:** Not available.
- **Partition coefficient: noctanol/water:** Not available
- **Auto igniting:** Product is not self igniting.
- **Decomposition temperature:** Not available.
- **Viscosity:** Not available.

### 10. Stability and Reactivity:

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- **Reactivity:** Sodium Azide can form explosive compounds with heavy metals which, with repeated contact with lead and copper commonly found in plumbing drains may result in the buildup of shock sensitive compounds.
- **Chemical Stability:** Stable under normal ambient and storage and handling temperatures.
- **Thermal:** decomposition/conditions to be avoided: No decomposition if used according to specifications.
- **Incompatible materials to be avoided:** Metals and metallic compounds.
- **Hazardous decomposition products:** Hazardous decompositions formed under fire conditions. No dangerous decomposition products known.

### 11. Toxicological Information:

- **Acute toxicity:** **Oral LD50 Oral:** 27 mg/kg (mouse and rat); **Inhalation LD50:** 32 mg/m<sup>3</sup> (mouse) and 37 mg/m<sup>3</sup> (rat); **Skin LD50:** 20 mg/kg (rabbit) and 50 mg/kg (rat)
- **Skin corrosion / irritation:** May be harmful if absorbed through the skin. May cause skin irritation.
- **Serious eye damage / irritation:** May cause eye irritation.
- **Respiratory or skin sensitization:** No sensitizing effects known.
- **Germ cell mutagenicity:** No effect known.
- **Carcinogenicity:** No effect known.
- **Reproductive toxicity:** No toxic effect known.
- **STOT-single exposure:** Data not available
- **STOT-repeated exposure:** Data not available.
- **Aspiration hazard:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Additional Information:** RTECS: Not available

### 12. Ecological Information:

- **Ecotoxicity:** Harmful to aquatic life. LC50, 96 Hrs, Fish *Lepomis macrochirus* - 0.68 mg/L; EC50, 48 Hrs, *Daphnia pulex* - 4.2 mg/L
- **Persistence and degradability:** No data available
- **Bioaccumulative potential:** No data available
- **Mobility in soil:** Sodium azide is soluble in water.
- **Other adverse effects:** Sodium azide is toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.

### 13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains and sewers.

### 14. Transport Information:

#### ADR/RID ADN/ADNR IMDG IATA/DOT

<b>ADR/DOT/:</b>	<b>UN Number:</b>	UN3082
<b>RID</b>	<b>Proper Shipping Name:</b>	Environmentally hazardous substance, liquid, n.o.s. (Sodium Azide)
	<b>Hazard class:</b>	9
	<b>Packing group:</b>	III
<b>IATA:</b>	<b>UN Number:</b>	UN3082
	<b>Proper Shipping Name:</b>	Environmentally hazardous substance, liquid, n.o.s. (Sodium Azide)
	<b>Hazard class:</b>	9
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Hazard class: 9  
Packing group: III  
Marine Pollutant: No

### 15. Regulations:

#### US Federal and State Regulations

**TSCA (Toxic Substances Control Act):** Sodium Azide is listed.

**SARA 313:** Sodium Azide is listed.

**SARA 311/312 Hazards:** Acute Health Hazard

**CERCLA Reportable Quantity:** 1000 lbs.

**California Proposition 65:** Sodium Azide is not listed on California's listing of known or potential carcinogens.

### 16. Other Information:

- **R-phrases:** R28: Very toxic if swallowed. R32: Contact with acids liberates very toxic gas. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **S-phrases:** S1/2: Keep locked up and out of reach of children. S28: After contact with skin, wash immediately with plenty of water. S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). S60: This material and its container must be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/safety data sheet.
- **Other Hazards:** Contact with acids liberates very toxic gas.
- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.