1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Mouse monoclonal [mAbcam 8226] to beta Actin - Loading Control

Recommended use: For research use only

Supplier Address: Abcam Inc
1 Kendall Square, Ste 341
Cambridge, MA 02139-1517
USA
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

E-mail address: technical@abcam.com

Emergency telephone: +1 866 928 0789 (Toll free) /+1 202 464 2554

2. HAZARDS IDENTIFICATION

GHS - Classification

Ozone: Not applicable

GHS Label elements, including precautionary statements

Not dangerous

Precautionary Statements - EU (§28, 1272/2008)
P280 - Wear protective gloves/ protective clothing

Other information

No information available
3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Classification (Reg. 1272/2008)</th>
</tr>
</thead>
</table>
| Sodium azide   | 26628-22-8  | <0.1     | Acute Tox. 2 (H300)  
Acute Tox. 1 (H310)  
Aquatic Acute 1 (H400)  
Aquatic Chronic 1 (H410)  
(EUH032)                                          |

For the full text of the H-Statements mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Eye contact        Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

Skin contact       Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation         Move to fresh air.

Ingestion          Clean mouth with water. Drink plenty of water.

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable properties Not flammable.

Flash point        not determined

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Ensure adequate ventilation.

Environmental precautions Try to prevent the material from entering drains or water courses.

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.
7. HANDLING AND STORAGE

Advice on safe handling  Handle in accordance with good industrial hygiene and safety practice.

Technical measures/Storage conditions  Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines  This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide</td>
<td>Ceiling: 0.29 mg/m³ NaN₃ Ceiling: 0.11 ppm Hydrazoic acid vapor</td>
<td>(vacated) S² Ceiling: 0.1 ppm HN₃ (vacated) Ceiling: 0.3 mg/m³ NaN₃</td>
<td>Ceiling: 0.1 ppm HN₃ Ceiling: 0.3 mg/m³ NaN₃</td>
</tr>
</tbody>
</table>

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines  Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering measures  Showers  Eyewash stations  Ventilation systems

Personal protective equipment

Eye/face protection  Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection  Long sleeved clothing. Protective gloves.

Respiratory protection  If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures  Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>No information available.</td>
<td>Odor</td>
<td>No information available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
<td>Physical State @20°C</td>
<td>Liquid</td>
</tr>
<tr>
<td>pH</td>
<td>7.20</td>
<td>Autoignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td>Boiling point/boiling range</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td>Flammability Limits in Air</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No data available</td>
<td>solubility</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td>Vapor Pressure @20°C (kPa)</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
<td>VOC Content(%)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

**Stability**
Stable under recommended storage conditions.

**Incompatible products**
None known based on information supplied.

**Conditions to avoid**
None known based on information supplied.

**Hazardous decomposition products**
None known based on information supplied.

**Hazardous polymerization**
Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

Product Information
Product does not present an acute toxicity hazard based on known or supplied information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral (mg/kg) (Rat)</th>
<th>LD50 Dermal (mg/kg) (Rat)</th>
<th>LC50 Inhalation (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide</td>
<td>27 (Rat)</td>
<td>50 (Rat)</td>
<td>20 (Rabbit)</td>
</tr>
</tbody>
</table>

**Chronic toxicity**

**Target Organ Effects**
None known.

12. ECOLOGICAL INFORMATION

**Ecotoxicity**
The environmental impact of this product has not been fully investigated.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide</td>
<td>0.8: 96 h Oncorhynchus mykiss mg/L LC50 0.7: 96 h Lepomis macrochirus mg/L LC50 5.46: 96 h Pimephales promelas mg/L LC50 flow-through</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. DISPOSAL CONSIDERATIONS

Waste disposal methods
This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging
Do not re-use empty containers.

US EPA Waste Number
P105

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide - 26628-22-8</td>
<td>P105</td>
<td>P105</td>
<td>P105</td>
<td>P105</td>
</tr>
</tbody>
</table>

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

DOT
Not dangerous goods

IATA
Not dangerous goods

ADR
Not dangerous goods

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>no</td>
</tr>
</tbody>
</table>

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.
U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

International Regulations

WHMIS Note: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H300 - Fatal if swallowed H310 - Fatal in contact with skin H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long lasting effects

Revision Date 13-Sep-2019
Revision Note No information available.

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of MSDS