

Revision: 02/19/2015

| | | accor | ding to Regulation (EC) No. 19 | 07/2006 as amended b | oy (EC) No. 1272/200 | 08 | | | |
|---------------------|---|--|--|---|---|---|--|--|--|
| | | Section 1. Id | lentification of the Substa | nce/Mixture and of | the Company/U | ndertaking | | | |
| 1.1 | Produc Produc Synony | t Name: | 13909 Caspase-3 Monoclonal A Apopain; CPP32; ICE3; | | 1067) | | | | |
| 1.2 | | | the substance or mixture | | - | | | | |
| | | ant identified uses: | For research use only, r | ot for human or vete | erinary use. | | | | |
| 1.3 | Details | Details of the Supplier of the Safety Data Sheet: | | | | | | | |
| | Comp | any Name: | Cayman Chemical Com 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 | pany | | | | | |
| | Web s | ite address: | www.caymanchem.com | | | | | | |
| | | nation: | Cayman Chemical Com | pany | +1 (73 | 4)971-3335 | | | |
| 1.4 | Emerge | ncy telephone num | ber: | | | | | | |
| | Emerg | gency Contact: | CHEMTREC Within US/ CHEMTREC Outside US | | | 0)424-9300 3)527-3887 | | | |
| | | | Section 2. Ha | zards Identifi | cation | | | | |
| 2.2 2.2.1 2.3 | Labelir GHS Si GHS H Based o GHS P No phra GHS R No phra GHS Si Please Advers | gnal Word: azard Phrases: on evaluation of curre recaution Phrases: ases apply. esponse Phrases: ases apply. torage and Disposal refer to Section 7 for se Human Health | Storage and Section 13 for Material may be irritating to May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledg | tance or mixture is r Disposal informatior the mucous membra n, ingestion, or skin a biratory system irrita e, the toxicological p | n. anes and upper res absorption. tion. properties have not | spiratory tract. | | | |
| | | Section | on 3. Composition | n/Information | on Ingredie | nts | | | |
| CAS RTEC | | Hazardous Compo REACH Registratio | nents (Chemical Name)/ on No. | Concentration | EC No./ EC Index No. | GHS Classification | | | |
| NA NA | | Caspase-3 Monoclona | I Antibody (Clone 31A1067) | 0.0 -0.1 % | NA NA | No data available. | | | |
| | 8-46-8 46000 | Bovine Serum Albumir | (BSA) | 0.05 % | 232-936-2 NA | Acute Tox.(O) 4: H302 | | | |
| | 28-22-8 50000 | Sodium azide | | 0.05 % | 247-852-1 011-004-00-7 | Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 Aquatic (C) 1: H410 | | | |



Page: 2 of 6

Revision: 02/19/2015

| | HEMICAL | | | | | | | |
|---|---|--|---|--|--------------------|-------------------------------|--|--|
| 764 VZ472 | | m chloride | | 0.85 % | 231-598-3 NA | No data available. | | |
| 7778-77-0 Potassium phosphat TC6615500 | | e, Monobasic | 0.03 % | 231-913-4 NA | No data available. | | | |
| 7558-79-4 Sodium phosphate, WC4500000 | | | Dibasic | 0.106 % | 231-448-7 NA | Eye Damage 2: H319 | | |
| 7732 ZC01 | 2-18-5 Water | | | 98.814 -98.914 % | 231-791-2 NA | No data available. | | |
| | Į | | | | 1 | | | |
| | | | Section 4. | First Aid Measu | Jres | | | |
| .1 | Description o | f First Aid | No data available. | | | | | |
| | Measures: | | | | | | | |
| | In Case of Inh | alation: | Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention. | | | | | |
| | In Case of Sk | in Contact: | Immediately wash skin wi | ash skin with soap and plenty of water for at least 15 minutes. Remove contaminate | | | | |
| | | | clothing. Get medical atte | ention if symptoms occur | . Wash clothing | before reuse. | | |
| | In Case of Ey | e Contact: | Hold eyelids apart and flu and tested by medical per | | ater for at least | 15 minutes. Have eyes examine | | |
| | In Case of Ing | jestion: | Wash out mouth with wat | er provided person is co | onscious. Never | give anything by mouth to an | | |
| | unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel. | | | | | | | |
| | | | Section 5. F | ire Fighting Mea | asures | | | |
| 5.1 | Suitable Extir | nguishing | ng Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. | | | | | |
| | Media: | Media: Use water spray to cool fire-exposed containers. | | | | | | |
| | Unsuitable Extinguishing A solid water stream may be inefficient. | | | | | | | |
| | Media: | | | | | | | |
| 5.2 | | roperties an | d No data available. | | | | | |
| | Hazards: | | N I 1 <i>C</i> | | | | | |
| | Flash Pt: | • | No data. | | | | | |
| | Explosive Lin | | LEL: No data. | UEL: No da | ata. | | | |
| | Autoignition I | | No data. | | 4 | | | |
| 5.3 | Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes. | | | | | | | |
| | | | Section 6. Accid | lental Release I | Measures | | | |
| 6.1 | Protective Pro | - | Avoid breathing vapors a | • | | | | |
| | Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, | | | | | | | |
| | Emergency Procedures: and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). | | | | | | | |
| 6.2 | Environmenta Precautions: | EnvironmentalTake steps to avoid release into the environment, if safe to do so.Precautions: | | | | | | |
| 6.3 | Methods and Material For Contain spill and collect, as appropriate. | | | | | | | |
| | Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations. | | | | | | | |
| | Up: | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Revision: 02/19/2015

Section 7. Handling and Storage

- 7.1
 Precautions To Be Taken
 Avoid breathing dust/fume/gas/mist/vapours/spray.

 in Handling:
 Avoid prolonged or repeated exposure.
- **7.2 Precautions To Be Taken** Keep container tightly closed.

in Storing: Store in accordance with information listed on the product insert.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

| CAS # | Partial Chemical Name | Britain EH40 | France VL | Europe |
|--|---|---|-----------------------------------|-----------------------------------|
| NA | Caspase-3 Monoclonal Antibody (Clone 31A1067) | No data. | No data. | No data. |
| 9048-46-8 | Bovine Serum Albumin (BSA) | No data. | No data. | No data. |
| 26628-22-8 Sodium azide | | TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 () | TWA: 0.1 mg/m3 STEL: 0.3 mg/m3 | TWA: 0.1 mg/m3 STEL: 0.3 mg/m3 |
| 7647-14-5 | Sodium chloride | No data. | No data. | No data. |
| 7778-77-0 Potassium phosphate, Monobasic | | No data. | No data. | No data. |
| 7558-79-4 | Sodium phosphate, Dibasic | No data. | No data. | No data. |
| 7732-18-5 Water | | No data. | No data. | No data. |
| CAS # | Partial Chemical Name | OSHA TWA | ACGIH TWA | Other Limits |
| NA | Caspase-3 Monoclonal Antibody (Clone 31A1067) | No data. | No data. | No data. |
| 9048-46-8 | Bovine Serum Albumin (BSA) | No data. | No data. | No data. |
| 26628-22-8 | Sodium azide | No data. | CEIL: 0.29 mg/m3 | No data. |
| 7647-14-5 | Sodium chloride | No data. | No data. | No data. |
| 7778-77-0 | Potassium phosphate, Monobasic | No data. | No data. | No data. |
| 7558-79-4 | Sodium phosphate, Dibasic | No data. | No data. | No data. |
| | | | | |

8.2 Exposure Controls:

8.2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.2.2 Personal protection equipment:

Eye Protection: Safety glasses

Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

Respiratory Equipment NIOSH approved respirator, as conditions warrant.

(Specify Type):

Work/Hygienic/Maintenan Do not take internally.

 ce Practices:
 Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.

 Wash thoroughly after handling.

No data available.



Revision: 02/19/2015

| .1 | Informat | ion on Basic Physical a | nd Chemical Properties | | | | | | |
|---|---|------------------------------------|------------------------------------|-------------------|-----------------|---------|------|--|--|
| | Physical States: [] Gas [X] Liquid [] Solid | | | | | | | | |
| | - | ance and Odor: | Solution | | | | | | |
| | Melting | Point: | No data. | | | | | | |
| | Boiling | | No data. | | | | | | |
| | Flash P | t: | No data. | | | | | | |
| | Evapora | ation Rate: | No data. | | | | | | |
| | Explosi | ve Limits: | LEL: No data. | UEL: No | o data. | | | | |
| | Vapor F Hg): | Pressure (vs. Air or mm | No data. | | | | | | |
| | | ensity (vs. Air = 1): | No data. | | | | | | |
| | Specific Gravity (Water = 1): | | No data. | | | | | | |
| | Solubili | ty in Water: | No data. | | | | | | |
| | Autoigr | ition Pt: | No data. | | | | | | |
| 9.2 | - | formation | | | | | | | |
| | Percent | Volatile: | No data. | | | | | | |
| | | Ś | Section 10. Stability | and Reacti | vity | | | | |
| 10.1 | Reactiv | ity: No da | ata available. | | | | | | |
| 10.2 | Stability | ity: Unstable [] Stable [X] | | | | | | | |
| 10.3 | Stability | / Note(s): Stabl | e if stored in accordance with in | formation listed | on the product | insert. | | | |
| Polymerization: Will occur [] Will not occur [X] | | | | | | | | | |
| 10.4 | Conditi | tions To Avoid: No data available. | | | | | | | |
| 10.5 | Incomp | atibility - Materials No da | ata available. | | | | | | |
| | To Avoi | | | | | | | | |
| 10.6 | Hazardo | dous No data available. | | | | | | | |
| | Decom | composition Or | | | | | | | |
| | Byprod | ucts: | | | | | | | |
| | | S | ection 11. Toxicologi | cal Informa | ation | | | | |
| 11.1 | Informa | | oxicological effects of this produ | ict have not beei | n thoroughly st | udied. | | | |
| | | ogical Effects: | | | | | | | |
| Carci | nogenicit | y: NTP? | ? No IARC Monographs? N | lo OSHA Re | egulated? No | | | | |
| CAS | # | Hazardous Componer | ts (Chemical Name) | NTP | IARC | ACGIH | OSHA | | |
| | NA | Caspase-3 Monoclonal | Antibody (Clone 31A1067) | n.a. | n.a. | n.a. | n.a. | | |
| 904 | 18-46-8 | Bovine Serum Albumin | (BSA) | n.a. | n.a. | n.a. | n.a. | | |
| 26628-22-8 Sodium azide | | Sodium azide | | n.a. | n.a. | A4 | n.a. | | |
| 200 | 17-14-5 | Sodium chloride | | n.a. | n.a. | n.a. | n.a. | | |
| | | Potassium phosphate, Monobasic | | n.a. | n.a. | n.a. | n.a. | | |
| 764 | 78-77-0 | Sodium phosphate, Dibasic | | 1 | 1 | | 1 | | |
| 764 777 | 78-77-0 58-79-4 | Sodium phosphate, Dib | | n.a. | n.a. | n.a. | n.a. | | |



Revision: 02/19/2015

| | Section 12. Ecological Information | | | | | | | |
|--------|--|---|--------------------------------------|--|--------------|--------------|--|--|
| 12.1 | | | | | | | | |
| 12.1 | TOXICITY | • | Runoff from fire control or dilution | | collution. | | | |
| 12.2 | Persiste | ence and | No data available. | | | | | |
| | Degrada | | | | | | | |
| 12.3 | Bioaccu | imulative | No data available. | | | | | |
| | Potentia | al: | | | | | | |
| 12.4 | Mobility | in Soil: | No data available. | | | | | |
| 12.5 | Results | of PBT and vPvB | No data available. | | | | | |
| | assessn | nent: | | | | | | |
| | | | Section 13. Dispos | al Considera | tions | | | |
| 13.1 | Waste D | isposal Method: | Dispose in accordance with loca | l, state, and federal | regulations. | | | |
| | | | Section 14. Trans | sport Informa | tion | | | |
| 14.1 | LAND T | RANSPORT (US | DOT): | | | | | |
| | | er Shipping Name | Not dangerous goods. | | | | | |
| | OT Hazar N/NA Nur | | | | | | | |
| 14.1 | | RANSPORT (Eur | onean ADR/RID). | | | | | |
| | | hipping Name: | Not dangerous goods. | | | | | |
| | N Numbe | | Not dangerede geode. | | | | | |
| н | Hazard Class: | | | | | | | |
| 14.3 | 14.3 AIR TRANSPORT (ICAO/IATA): | | | | | | | |
| IC | ICAO/IATA Shipping Name: Not dangerous goods. | | | | | | | |
| | Additional Transport Transport in accordance with local, state, and federal regulations. | | | | | | | |
| Inforr | mation: | | | | | | | |
| | | | Section 15. Regula | atory Informa | tion | | | |
| EPA | SARA (Sı | perfund Amendn | nents and Reauthorization Act o | of 1986) Lists | | | | |
| CAS | # | Hazardous Com | ponents (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) | | |
| | NA | Caspase-3 Mono | clonal Antibody (Clone 31A1067) | No | No | No | | |
| 904 | 8-46-8 | Bovine Serum Al | bumin (BSA) | No | No | No | | |
| 2662 | 28-22-8 | Sodium azide | | Yes 500 LB | Yes 1000 LB | Yes | | |
| 764 | 7-14-5 | Sodium chloride | | No | No | No | | |
| 777 | 8-77-0 | Potassium phosphate, Monobasic | | No | No | No | | |
| 755 | 8-79-4 | Sodium phosphate, Dibasic | | No | Yes 5000 LB | No | | |
| 773 | 2-18-5 | Water | | No | No | No | | |
| CAS | <u> </u> | Hererdeus Com | nonanta (Chamical Nama) | Other US EDA or | State Lists | | | |
| CAS | # NA | | ponents (Chemical Name) | Other US EPA or State Lists | | | | |
| | INA. | Caspase-3 Monoclonal Antibody (Clone 31A1067) | | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No | | | | |
| 904 | 8-46-8 | Bovine Serum Al | bumin (BSA) | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - | | | | |
| | | | | Inventory; CA PR | | | | |
| 2662 | 28-22-8 | Sodium azide | | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No | | | | |
| | | | | | | | | |



Revision: 02/19/2015

Page: 6 of 6

| - CHIMICAL | | | | | |
|-----------------------------------|-------------------------------------|---|---|--|--|
| 7647-14-5 Sodium chloride | | | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No | | |
| 7778-77-0 | 77-0 Potassium phosphate, Monobasic | | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No | | |
| 7558-79-4 | Sodium phospha | te, Dibasic | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No | | |
| 7732-18-5 | Water | | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No | | |
| | 1 | | | | |
| Regulatory Inf | ormation | | ordance with 29 CFR 1910.1200 and Regulation (EC) | | |
| Statement: | | No.1272/2008. Section 16. Other Information | | | |
| | | | | | |
| Revision Date: Additional Info | ormation About | 02/19/2015 No data available. | | | |
| This Product: | | | | | |
| Company Policy or Disclaimer: | | currently available to us. Hower express or implied, with respec | is believed to be accurate and represents the best information ver, we make no warranty of merchantability or any other warranty, at to such information, and we assume no liability resulting from its own investigations to determine the suitability of the information for | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |