SAFETY DATA SHEET

| Section 1 | Chemical Product and Company Information | Page E1 of E2 |
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| | 80 Northwest Blvd. Nashua, NH 03063 (800) 225-3739 | CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory use only. Not for drug, food or household use. |
| Product | CATALASE ENZYME | |
| Synonyms | Catalase / Catalase Concentrate / E.C. Number: 1.11.1.6 | |
| Section 2 | Hazards Identification | |
| to the Globa Chemicals. Signal word: Pictograms: Target orgar GHS Classif GHS Label in | nce or mixture has not been classified as hazardous according ally Harmonized System (GHS) of Classification and Labeling of : None required ns: None required ns: None known fication: None required nformation: Hazard statement: None required ry statement: None required | Supplemental information: Store under refrigeration for added stability. Product may cause sensitization in certain individuals. Avoid inhalation. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell. |

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

| Section 3 | Composition / Information on Ingredients | | | | |
|---------------|--|-----------|------|-----------|--|
| Chemical Name | | CAS # | % | EINECS | |
| Catalase | | 9001-05-2 | 100% | 232-577-1 | |
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| Section 4 | First Aid Measures | ' | 1 | | |

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

ERG: Emergency Response Guidebook.

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in refrigerator.

| Section 8 | Exposure Controls / Personal Pro | tection | | | | | |
|------------------|----------------------------------|-----------------|-----------------|-----------------|--|--|--|
| Exposure Limits: | Chemical Name | ACGIH (TLV) | OSHA (PEL) | NIOSH (REL) | | | |
| Exposure Limits. | Catalase | Not established | Not established | Not established | | | |

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

| Section 0 | | | | | | | |
|---|--|--|---|---|---|--|--|
| Section 9 | Physical & Chemical Pro | perties | | | | | |
| Odor: Fermented Odor threshold: pH: 5.1 - 5.4 | Data not available. g point: Data not available ata not available | Flammability (Explosion limi Vapor pressur Vapor density Relative densi | <pre>ite (= 1): Data not a solid/gas): Data not a ts: Lower / Upper: Data e (mm Hg): Data not (Air = 1): Data not av ty (Specific gravity): Soluble in water.</pre> | available. Data not available available ailable | Auto-ignitio Decomposi Viscosity: Molecular f | befficient: Data no on temperature: I ition temperature: Data not available. formula: Data not weight: Data not a | Data not available Data not available. available |
| Section 10 | Stability & Reactivity | | | | i. | | |
| Chemical stabilit Conditions to av | ty: Stable roid: Excessive temperatures and | | ous polymerization: | Will not occur. | | | |
| Incompatible ma | terials: None known. | | | | | | |
| Hazardous deco | mposition products: None know | /n. | | | | | |
| Section 11 | Toxicological Information | ı | | | | | |
| Respiratory or s Germ cell mutag Carcinogenity: NTP: No compon IARC: No compon OSHA: No compor OSHA: No compor Reproductive to STOT-single exp STOT-repeated of Aspiration hazar Potential health Inhalation: Inhala Ingestion: Not ex Skin: Contact wii Eyes: Contact wii Signs and symp procedures to min Additional inform | ation may cause allergic respirator spected to be toxic by ingestion. th skin may cause mild irritation. th eyes may cause transient irritat toms of exposure: Any person v nimize potential hazards. nation: RTECS #: FI4378000 | able s greater than or e els greater than or els greater than o y reactions includi ion. | equal to 0.1% is ident r equal to 0.1% is iden ng asthma, in suscept | ified as probable, po tified as a carcinoge ible individuals on re | ssible or confir n or potential c peated exposu | med human carcino carcinogen by OSH. | A. |
| Section 12 | Ecological Information | | | | | | |
| - | No data available nia and other aquatic invertebra | tes: No data avail | able | | | | |
| Persistence and Mobility in soil: | : No data available degradability: Readily biodegrad No data available ffects: An environmental hazard of Disposal Considerations | annot be exclude | Bioaccumulative po PBT and vPvB asses d in the event of unpro | ssment: No data av | ailable | | |
| Persistence and Mobility in soil: Other adverse ef Section 13 These disposal | degradability: Readily biodegrad No data available ffects: An environmental hazard o | annot be exclude disposal of cata cordance with all | PBT and vPvB assest d in the event of unpro- log-size quantities c local, state and fed | ssment: No data av fessional handling o nly. Federal regul | ailable r disposal. ations may ar | | |
| Persistence and Mobility in soil: Other adverse of Section 13 These disposal regulations may Section 14 UN/NA number Hazard class: Exceptions: N | degradability: Readily biodegrad No data available Image: Considerations ffects: An environmental hazard of Disposal Considerations guidelines are intended for the be different. Dispose of in acc Transport Information (It r: Not applicable Pac Not applicable 2012 | annot be exclude disposal of cata cordance with all | PBT and vPvB asses d in the event of unpro- log-size quantities of local, state and fed DA TDG) lot Regulated ot applicable | ssment: No data av fessional handling o nly. Federal regul | ailable r disposal. ations may ap contract with | a licensed chem | |
| Persistence and Mobility in soil: Other adverse of Section 13 These disposal regulations may Section 14 UN/NA number Hazard class: Exceptions: N Section 15 | degradability: Readily biodegrad No data available Intervention ffects: An environmental hazard of Disposal Considerations guidelines are intended for the be different. Dispose of in acc Transport Information (Urr: r: Not applicable Pac Not applicable Pac Not applicable 2012 Regulatory Information | cannot be exclude disposal of cata cordance with all JS DOT / CANAL oping name: N king group: N 2 ERG Guide # | PBT and vPvB asses d in the event of unpro- log-size quantities of local, state and fed DA TDG) lot Regulated ot applicable Not applicable | ssment: No data av fessional handling o nly. Federal regul eral regulations or | ailable r disposal. ations may ap contract with | a licensed chem | ical disposal agency. |
| Persistence and Mobility in soil: Other adverse ef Section 13 These disposal regulations may Section 14 UN/NA number Hazard class: Exceptions: N Section 15 A chemical is consid | degradability: Readily biodegrad No data available Intervention ffects: An environmental hazard of Disposal Considerations guidelines are intended for the bedifferent. Dispose of in acc Transport Information (Information (Informatin (Informatin (Information (Information (Informatin (Information(| annot be excluded disposal of cata cordance with all JS DOT / CANAL oping name: N king group: N 2 ERG Guide # | PBT and vPvB asses d in the event of unpro- log-size quantities of local, state and fed DA TDG) lot Regulated ot applicable Not applicable is on the Inventory list. | ssment: No data av fessional handling o nly. Federal regul eral regulations or Reportable Qua | ailable r disposal. ations may ap contract with untity: No | à licensed chem | ical disposal agency. ne pollutant: No |
| Persistence and Mobility in soil: Other adverse ef Section 13 These disposal regulations may Section 14 UN/NA number Hazard class: Exceptions: N Section 15 A chemical is consid Comp | degradability: Readily biodegrad No data available Intervention ffects: An environmental hazard of Disposal Considerations guidelines are intended for the bedifferent. Dispose of in acc Transport Information (Information (Informatin (Informatin (Information (Information (Informatin (Information(| cannot be exclude disposal of cata cordance with all JS DOT / CANAL oping name: N king group: N 2 ERG Guide # | PBT and vPvB asses d in the event of unpro- log-size quantities of local, state and fed DA TDG) lot Regulated ot applicable Not applicable | ssment: No data av fessional handling o nly. Federal regul eral regulations or | ailable r disposal. ations may ap contract with | a licensed chem | ical disposal agency. ne pollutant: No WHMIS Classificatio |
| Persistence and Mobility in soil: Other adverse ef Section 13 These disposal regulations may Section 14 UN/NA number Hazard class: Exceptions: N Section 15 A chemical is consid | degradability: Readily biodegrad No data available Intervention ffects: An environmental hazard of Disposal Considerations guidelines are intended for the bedifferent. Dispose of in acc Transport Information (Information (Informatin (Informatin (Information (Information (Informatin (Information(| cannot be excluded disposal of cata cordance with all JS DOT / CANAL pping name: N king group: N 2 ERG Guide # the anhydrous form TSCA | PBT and vPvB asses d in the event of unpro- log-size quantities of local, state and fed DA TDG) lot Regulated ot applicable Not applicable is on the Inventory list. CERLCA (RQ) | ssment: No data av fessional handling o Inly. Federal regul eral regulations or Reportable Qua RCRA code | ailable r disposal. ations may ag contract with untity: No DSL | a licensed chem Marin NDSL | ical disposal agency. |

IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure,