

MATERIAL SAFETY DATA SHEET: DR ZYME

Section I - General Information

(000000-000000- - 0316)

Date of Issue:

10/1/2007 12:00:00 AM

Supersedes:

5/31/2007 12:00:00 AM

Chemical Name & Synonyms:

N/A

Trade Name & Synonyms:

DR ZYME

Chemical Family:

AQUEOUS BACTERIAL SUSPENSION

Formula is a mixture: []**Manufacturer Name:**

CHEMSEARCH DIV. OF NCH CORP.

Manufacturer Address:BOX 152170
IRVING, TX 75015**Prepared By:**

M MCDOWELL/CHEMIST

Product Code Number:

0316

Emergency Phone Number:

800-424-9300

Section II - Hazardous Ingredients

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

<u>Chemical Name (Ingredients)</u>	<u>Hazard</u>	<u>TLV</u>	<u>PEL</u>	<u>STEL</u>	<u>CAS #</u>
SODIUM CHLORIDE	IRRITANT	N/E 1	N/E 2	N/E	7647-14-5
BACTERIAL SPORES	IRRITANT	N/E 1	N/E 2	N/E	TRADE SECRET

Section III - Physical Data

Boiling Point (°F): 210	Specific Gravity (H₂O=1): 1.04
Vapor Pressure (mm Hg): 18	Color: TAN-WHITE
Vapor Density (Air=1): 0.6	Odor: CHERRY-VANILL
pH @ 100% : 9	Clarity: OPAQUE
% Volatile by Volume: 98	Evaporation Rate (BuAc=1): 0.1
H₂O Solubility: COMPLETE	Viscosity: NON-VISCOUS

Section IV - Fire and Explosion Hazard

Flash Point: >200°F
Flammable Limits: N/A
LEL: N/A

Method Used: SETAFLASH**UEL:** N/A**Aerosol Level (NFPA 30B):** N/A**Extinguishing Media:**

<input checked="" type="checkbox"/> Foam	<input checked="" type="checkbox"/> Alcohol Foam	<input checked="" type="checkbox"/> CO ₂
<input checked="" type="checkbox"/> Dry Chemical	<input checked="" type="checkbox"/> Water Spray	<input type="checkbox"/> Other

NFPA 704 Hazard Rating:

4-Extreme	Health: 2
3-High	Flammability: 1
2-Moderate	Instability: 0
1-Slight	Special:
0-Insignificant	

Special Fire Fighting Procedures: FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. EXTINGUISHING MEDIA SHOULD BE CHOSEN BASED ON THE NATURE OF THE SURROUNDING FIRE. (FIRE-EXPOSED CONTAINERS WITH WATER SPRAY TO PREVENT BURSTING. IF USING FOAM, USE AN ALCOHOL-RESISTAN FOR THE MAXIMUM BENEFIT.

Unusual Fire and Explosion Hazards:

THE USE OF WATER SPRAY (FOG) WHILE EFFECTIVE, MAY CAUSE FROTHING AND FOAMING. NEVER USE A WATER JET / WILL JUST SPREAD THE FIRE. USE CARE AS SPILLS MAY BE SLIPPERY.

Section V - Health and Hazard Data

Threshold Limit Value:
NOT ESTABLISHED.

Effects of Overexposure:

Acute: (Short Term Exposure)

EYE CONTACT: CAUSES IRRITATION SEEN AS REDNESS AND TEARING.
SKIN CONTACT: MAY CAUSE IRRITATION SEEN AS ITCHING AND REDNESS. WHILE THE BACTERIA IN THIS PRODUCT ARE NON-PATHOGENIC, CONTACT WITH OPEN SORES OR CUTS CAN CAUSE OPPORTUNISTIC INFECTIONS IN IMMUNO-SUPPF INDIVIDUALS.
INHALATION: CAUSES RESPIRATORY IRRITATION SEEN AS COUGHING AND SNEEZING. MAY CAUSE HEADACHES AND DIZ SYMPTOMS INCLUDE SHORTNESS OF BREATH, WHEEZING AND COUGHING.
INGESTION: CAUSES IRRITATION WITH POSSIBLE NAUSEA, VOMITING AND DIARRHEA.

Chronic: (Long Term Exposure)

CHRONIC OVEREXPOSURE BY INGESTING SODIUM CHLORIDE CAUSES ELEVATED BLOOD PRESSURE. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS EMPHYSEMA, AND DERMATITIS.
TARGET ORGANS: NONE KNOWN. THERE IS NO PRIMARY ROUTE OF ENTRY INTO THE BODY. THE PRIMARY ROUTES OF EXPOSURE ARE SKIN AND EYE CONTACT.

Primary Routes of Entry
 Inhalation Ingestion Absorption

Emergency First Aid Procedures:

Inhalation:

REMOVE FROM THE AREA TO FRESH AIR. IF NOT BREATHING, CLEAR THE AIRWAY AND START MOUTH TO MOUTH ARTIF RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

Eye Contact:

RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING WITH PLENTY OF WATER FOI SEVERAL MINUTES. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS.

Skin Contact:

WASH AFFECTED AREAS WITH PLENTY OF SOAP AND WATER FOR SEVERAL MINUTES. SEEK MEDICAL ATTENTION IF IRF DEVELOPS.

Ingestion:

GIVE 3 TO 4 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING. IF VOMITING OCCURS, GIVE FLUIDS AGAIN. SEEK MEI ATTENTION IF DISCOMFORT OCCURS.

Notes to Physician:

THE BACTERIA IN THIS PRODUCT IS NOT NORMALLY PATHOGENIC; BUT AS WITH ANY BACTERIA, OPPORTUNISTIC INFEC IMMUNOCOMPROMISED INDIVIDUALS CAN OCCUR FOLLOWING EXPOSURE TO BROKEN SKIN OR BY INHALATION OF THE

Section VI - Toxicity Information

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:
 IARC NTP OSHA ACGIH Other

VOC CONTENT: 1.2% BY WEIGHT; 1.5% BY VOLUME, 0.9 G/L

SODIUM CHLORIDE

IHL-RAT LC₅₀: >42 GM/M³/1H 4.

ORL-RAT LD₅₀: 3000 MG/KG 4.

SKN-RBT LD₅₀: >10 GM/KG 4.

SKN-RBT SDT: 500 MG/24H MILD 4.

EYE-RBT SDT: 100 MG/24H MODERATE 4.

BACTERIAL SPORES

NO TOXICITY DATA AVAILABLE

Section VII - Reactivity Data

Stability	Hazardous Polymerization
<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable Conditions to Avoid: AVOID EXTREME TEMPERATURES.	<input checked="" type="checkbox"/> Will not occur <input type="checkbox"/> May occur Conditions to Avoid: N/A

Incompatibility (Materials to Avoid):

STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE; ALDEHYDES, ALKANOLAMINES, AMINES, BROMINE TRIFLUORIDE, CAUSTICS, CHLORINATED COMPOUNDS, DICHLOROMALEIC ANHYDR UREA AND LITHIUM, AND DISINFECTANTS.

Hazardous Decomposition Products:

OXIDES OF CARBON AND NITROGEN; FUMES OF CHLORINE AND SODIUM OXIDE.

Section VIII - Spill Or Leak Procedures

Steps to be Taken if Material is Released or Spilled:

WEAR APPROPRIATE PROTECTIVE CLOTHING. USE CARE AS SPILLS MAY BE SLIPPERY. VENTILATE THE AREA. DIKE AND SPILL. ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR I PREVENT PRODUCT FROM CONTAMINATING SOIL OR FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS AND BODIES WATER. FLUSH AREA WITH WATER.

Waste Disposal Method(s):

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

Neutralizing Agent:

N/A

Section IX - Special Protection Information

Required Ventilation:

GENERAL VENTILATION IS NORMALLY ADEQUATE. LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FR OPERATIONS THAT CAN GENERATE EXCESSIVE LEVELS OF MISTS. LOCAL VENTILATION IS PREFERRED, BECAUSE IT PR DISPERSION INTO WORK AREAS BY CONTROLLING IT AT ITS SOURCE.

Respiratory Protection:

NONE REQUIRED UNDER NORMAL CONDITIONS OF USE. RESPIRATORS SHOULD BE SELECTED BY AND USED UNDER TH DIRECTION OF A TRAINED HEALTH AND SAFETY PROFESSIONAL FOLLOWING REQUIREMENTS FOUND IN OSHA'S RESPIR STANDARD (29 CFR 1910.134) AND ANSI'S STANDARD FOR RESPIRATORY PROTECTION (Z88.2-1992). FOR CONCENTRATIC ABOVE THE TLV AND/OR PEL BUT LESS THAN 10 TIMES THESE LIMITS, A NIOSH APPROVED HALF-FACEPIECE RESPIRATC EQUIPPED WITH APPROPRIATE CHEMICAL CARTRIDGES MAY BE USED. FOR CONCENTRATIONS GREATER THAN 10 TIME AND/OR PEL, CONSULT THE NIOSH RESPIRATOR DECISION LOGIC FOUND IN PUBLICATION NO. 87-116 OR ANSI Z88.2-199

Glove Protection:

NEOPRENE OR NITRILE RUBBER GLOVES IF REPEATED OR PROLONGED SKIN CONTACT IS LIKELY. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR HAND PROTECTION, 29 CFR 1910.138.

Eye Protection:

SAFETY GLASSES WITH SIDE SHIELDS IF THE METHOD OF APPLICATION PRESENTS THE LIKELIHOOD OF EYE CONTACT. COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR EYE AND FACE PROTECTION, 29 CFR 1910.133.

Other Protection:

WEAR GENERAL-DUTY WORK CLOTHES AND SHOES. A SAFETY SHOWER AND AN EYEWASH STATION SHOULD BE AVAILABLE.

Section X - Storage and Handling Information

Storage Temperature Max: 104°F Min: 35°F	Storage Conditions <input checked="" type="checkbox"/> Indoors <input type="checkbox"/> Outdoors <input type="checkbox"/> Heated <input type="checkbox"/> Refrigerated
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Precautions to be Taken in Handling and Storing:

ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. DO NOT EXPOSE PRODUCT TO FREEZE.

Other Precautions:

DO NOT USE IN CONJUNCTION WITH BLEACH OR OTHER HOUSEHOLD DISINFECTANTS AS THEY MAY INACTIVATE THIS PRODUCT. KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING THE PRODUCT. FOLLOW THE LABEL DIRECTIONS.

Section XI - Regulatory Information

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Upper % Limit</u>
None.		

Those Ingredients listed above are subject to the reporting requirements of 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Please call 1-800-527-9919 for additional information if you are a California customer. This MSDS is not intended for users in the state of California.

Section XII - References

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, 2006.
 2. OSHA PEL.
 3. VENDOR'S MSDS.
 4. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFOWeb, 2007.
 5. EUROPEAN CHEMICAL SUBSTANCES INFORMATION SYSTEM (ESIS) INTERNATIONAL UNIFORM CHEMICAL INFORMATION SYSTEM (IUCLID) CHEMICAL DATA SHEETS.
- ALL THE COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (TSCA) AND ARE EITHER LISTED ON THE TSCA INVENTORY OR OTHERWISE EXEMPTED FROM LISTING.

IRR: IRRITANT, OSHA: OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, IARC: INTERNATIONAL AGENCY FOR THE RESEARCH ON CANCER, TOX: TOXIC, NFPA: NATIONAL FIRE PROTECTION ASSOCIATION, PPM: PARTS PER MILLION, UEL: UPPER EXPOSURE LIMIT, STEL: SHORT-TERM EXPOSURE LIMIT, SKN: SKIN, IHL: INHALATION, COMB: COMBUSTIBLE, CORR: CORROSIVE, MUT: MUTAGENIC, CARC: CARCINOGENIC, N/A: NOT APPLICABLE, TLV: THRESHOLD LIMIT VALUE, N/E: NOT ESTABLISHED, ORL: ORAL FLAMMABLE, ASPHYX: ASPHYXIAN, COC: CLEVELAND OPEN CUP, PNOR: PARTICLES NOT OTHERWISE REGULATED, LEL: LOWER EXPLOSION LIMIT, PNOS: PARTICLES NOT OTHERWISE SPECIFIED, PMCC: PENSKY-MARTIN CLOSED CUP, NTP: NATIONAL TOXICOLOGY PROGRAM, TCC: TAGLIABUE CLOSED CUP, SEV: SEVERE, RBT: RABBIT, INV: INTRAVENOUS, ACGIH: AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, PEL: PERMISSIBLE EXPOSURE LIMIT, MOD: MODERATE, IPT:

INTRAPERITONEAL, GM/KG: GRAMS PER KILOGRAM, C.C.C.: CLEVELAND CLOSED CUP, HMN: HUMAN, MG/M3: MILLIGRAM: CUBIC METER, MG/KG: MILLIGRAMS PER KILOGRAM, VOC: VOLATILE ORGANIC COMPOUND, SDT: STANDARD DRAIZE TEST MOUSE, GPG: GUINEA PIG.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THE DATA OR THE RESULTS TO OBTAINED FROM THE USE THEREOF.

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