MATERIAL SAFETY DATA SHEET: CHEM-ZYME COMPLETE

Section I - General Information

(000000-000000- - 4403)

Date of Issue:
8/4/2006 12:00:00 AM

Supercedes:
4/3/2002 12:00:00 AM

Chemical Name & Synonyms:
N/A

Trade Name & Synonyms:
CHEM-ZYME COMPLETE

Chemical Family:
BACTERIOLOGICAL SPORES BLEND

Formula is a mixture: [√]

Manufacturer Name:
CHEMSEARCH DIV. OF NCH CORP.

Manufacturer Address:
BOX 152170
IRVING, TX 75015

Prepared By:
E Levi/Chemist

Product Code Number:
4403

Emergency Phone Number:
800-424-9300

Section II - Hazardous Ingredients

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)	Hazard	TLV	PEL	STEL	CAS #
PLASTER OF PARIS	IRRITANT	3 MG/M3$ 1	5 MG/M3* 2	N/E	26499-65-0
SODIUM BICARBONATE	IRRITANT	N/E 1	5 MG/M3* 2	N/E	144-55-8
MONOSODIUM PHOSPHATE ANHYDROUS	IRRITANT	N/E 1	5 MG/M3* 2	N/E	7558-80-7
DISODIUM PHOSPHATE ANHYDROUS	IRRITANT	N/E 1	5 MG/M3* 2	N/E	7558-79-4
UREA	IRRITANT	3 MG/M3$ 1	5 MG/M3* 2	N/E	57-13-6
SODIUM THIOSULFATE	IRRITANT	N/E 1	5 MG/M3* 2	N/E	7772-98-7
SODIUM CHLORIDE	IRRITANT	N/E 11	N/E 2	N/E	7647-14-5
WHEAT BRAN	IRRITANT	3 MG/M3$ 1	5 MG/M3$ 2	N/E	116469-86-4
BACTERIAL SPORES	IRRITANT	3 MG/M3$ 1	5 MG/M3$ 2	N/E	68038-70-0
WHEAT SHORTS	IRRITANT	3 MG/M3$ 1	5 MG/M3$ 2	N/E	TRADE SECRET
$ PNOS					
* PNOR					
TRIACYLGLYEROL LIPASE	SENSITIZER	3 MG/M3 $1	5 MG/M3* 2	N/E	9001-62-1

Section III - Physical Data

Boiling Point (°F): N/A
Vapor Pressure (mm Hg): 0
Vapor Density (Air=1): 0
pH @ 100% : N/A
% Volatile by Volume: 0
H_2O Solubility: APPRECIABLE

Specific Gravity (H_2O=1): 0.49
Color: TAN
Odor: YEAST
Clarity: OPAQUE
Evaporation Rate (BuAc=1): 0
Viscosity: POWDER

Section IV - Fire and Explosion Hazard

Flash Point: NON-FLAM
Flammable Limits: N/E
LEL: N/E

Method Used: N/A
UEL: N/E
Aerosol Level (NFPA 30B): N/A

Extinguishing Media:

[√] Foam [√] Alcohol Foam [√] CO2
[√] Dry Chemical [√] Water Spray [ ] Other

NFPA 704 Hazard Rating:

4-Extreme
3-High
2-Moderate
1-Slight
0-Insignificant

Health: 1
Flammability: 1
Instability: 0
Special:

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. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY TO PREVENT BURSTING.

Unusual Fire and Explosion Hazards:
PRODUCT MAY FORM AN EXPLOSIVE MIXTURE WHEN FINELY DIVIDED AND SUSPENDED IN AIR. THE USE OF WATER SPRAY (F0G) WHILE EFFECTIVE, MAY CAUSE FROTHING AND FOAMING. NEVER USE A WATER JET AS THIS WILL JUST SPREAD THE FIRE. USE CARE AS SPILLS MAY BE SLIPPERY.

Section V - Health and Hazard Data

Threshold Limit Value:
3 MG/M3 AS PNOS 1.

Effects of Overexposure:

Acute: (Short Term Exposure)
EYE CONTACT: MAY CAUSE IRRITATION SEEN AS STINGING, TEARING, AND REDNESS. SKIN CONTACT: MAY CAUSE IRRITATION SEEN AS ITCHING, REDNESS, DRYNESS AND CHAPPING OF THE SKIN. WHILE THE BACTERIA IN THIS PRODUCT ARE NON-PATHOGENIC, CONTACT WITH OPEN SORES OR CUTS CAN CAUSE OPPORTUNISTIC INFECTIONS IN IMMUNO-SUPPRESSED INDIVIDUALS. INHALATION: MAY CAUSE RESPIRATORY IRRITATION SEEN AS COUGHING AND SNEEZING. MAY CAUSE ALLERGIC RESPIRATORY REACTION. INGESTION: MAY CAUSE IRRITATION WITH POSSIBLE NAUSEA, VOMITING, AND DIARRHEA.

Chronic: (Long Term Exposure)
MAY CAUSE RESPIRATORY SENSITIZATION IN SOME INDIVIDUALS. LONG TERM INHALATION OF EXCESSIVE DUST MAY CAUSE DELAYED LUNG INJURY SEEN AS CYANOSIS, PROGRESSIVE CHEMICAL PNEUMONITIS, AND PULMONARY EDEMA. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS. TARGET ORGANS: LUNGS. 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:

IF DUST IS INHALED, REMOVE FROM THE AREA TO FRESH AIR. HAVE THE PERSON BLOW THEIR NOSE TO REMOVE THE SUBSTANCE FROM THE NASAL PASSAGES AND KEEP FROM INHALING FURTHER. SEEK MEDICAL ATTENTION IF DISCOMFORT OCCURS.

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

Skin Contact:
WIPE AWAY MATERIAL WITH A CLOTH. WASH WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS. CLEAN CLOTHING AND SHOES.

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

Notes to Physician:
LARGE DOSES TO PATIENTS WITH RENAL INSUFFICIENCY CAN PRODUCE SYSTEMIC ALKALOSIS.

Section VI - Toxicity Information

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

[ ] IARC [ ] NTP [ ] OSHA [ ] ACGIH [ ] Other

VOC CONTENT: 0% BY WEIGHT; 0% BY VOLUME; 0 G/L

PLASTER OF PARIS
NO TOXICITY DATA AVAILABLE

SODIUM BICARBONATE
SKN-HMN SDT: 30 MG/3D (INTERMITTENT) MILD 4.
EYE-RBT SDT: 100 MG/30S MILD 4.
ORL-RAT LD50: 4220 MG/KG 4.
IHL-RAT LC: >900 MG/M3 4.
ORL-HMN TDLo: 1260 MG/KG (INFANT) 4.
IHL-RAT TCLo: 7720 µG/KG/17W 4.

MONOSODIUM PHOSPHATE ANHYDROUS
ORL-RAT LD50: 7100 MG/KG 3.
SKN-RBT LD50: >7940 MG/KG 3.
EYE-HMN SDT: 50 MG/MILD 4.
EYE-RBT SDT: 150 MG/MILD 4.

DISODIUM PHOSPHATE ANHYDROUS
ORL-RAT LD50: 5,950 MG/KG 3
SKN-RBT LD50: >7,940 MG/KG 3
SKN-RBT: 0.0/8.0 (24-HR EXP), NON-IRRITATING 3
EYE-RBT: 4.2/110.0 SLIGHTLY IRRITATING 3

UREA
IHL-RAT TCLo: 288 MG/M3/17W-I 3.
ORL-RAT LD50: 8471 MG/KG 3.
SKN-HMN SDT: 22 MG/3D (INTERMITTENT) MILD 3.
SKN-RAT TDLo: 3024 MG/KG/4W-C 3.

SODIUM THIOSULFATE
ORL-HMN TDLo: 300 MG/KG/7D 3.

SODIUM CHLORIDE
IHL-RAT LC50: >42 GM/M3/1H 3.
ORL-RAT LD50: 3000 MG/KG 3.
SKN-RBT LD50: >10 GM/KG 3.
SKN-RBT SDT: 500 MG/24H MILD 3.
EYE-RBT SDT: 100 MG/24H MODERATE 3.

WHEAT BRAN
NO TOXICITY DATA AVAILABLE

BACTERIAL SPORES
NO TOXICITY DATA AVAILABLE

WHEAT SHORTS
NO TOXICOLOGICAL DATA AVAILABLE

Section VII - Reactivity Data

Stability

[√] Stable [ ] Unstable

Conditions to Avoid:
EXCESSIVE MOISTURE, EXTREME TEMPERATURES AND DISINFECTANTS. UREA MAY SLOWLY HYDROLYZE TO AMMONIUM CARBAMATE WHICH DECOMPOSES TO AMMONIA AND CARBON DIOXIDE.

Hazardous Polymerization

[√] Will not occur [ ] May occur

Conditions to Avoid:
N/A.

Incompatibility (Materials to Avoid):
STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE; STRONG ACIDS SUCH AS NITRIC AND HYDROCHLORIC ACIDS; STRONG BASES; DISINFECTANTS, BROMINE TRIFLUORIDE, DICHLOROMALEIC ANHYDRIDE WITH UREA, LITHIUM, AND NITRATES.

Hazardous Decomposition Products:
OXIDES OF CARBON, NITROGEN, AND SULFUR; AMMONIA, BIURET, HYDROGEN SULFIDE, AND FUMES OF CHLORINE AND SODIUM OXIDE.

Section VIII - Spill Or Leak Procedures

Steps to be Taken if Material is Released or Spilled:
ELIMINATE IGNITION SOURCES OF ELECTRICAL, STATIC, OR FRICTIONAL SPARKS. VENTILATE THE CONTAMINATED AREA AND AVOID CREATING DUSTY CONDITIONS. WEAR APPROPRIATE PROTECTIVE CLOTHING. TRANSFER SOLID USING NON-SPARKING EQUIPMENT INTO A PROPERLY LABELED CONTAINER FOR REUSE OR DISPOSAL. IF NECESSARY WASH AREA WITH WATER. PREVENT PRODUCT FROM CONTAMINATING SOIL OR FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS AND BODIES OF 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:

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE DUSTY CONDITIONS. LOCAL VENTILATION IS PREFERRED, BECAUSE IT PREVENTS DISPERSION INTO WORK AREAS BY CONTROLLING IT AT ITS SOURCE.

Respiratory Protection:

RESPIRATORS SHOULD BE SELECTED BY AND USED UNDER THE DIRECTION OF A TRAINED HEALTH AND SAFETY PROFESSIONAL FOLLOWING REQUIREMENTS FOUND IN OSHA'S RESPIRATOR STANDARD (29 CFR 1910.134) AND ANSI'S STANDARD FOR RESPIRATORY PROTECTION (Z88.2-1992). WEAR A NIOSH/MSHA APPROVED RESPIRATOR WITH A DUST CARTRIDGE FILTER IF EXPOSURE CAN EXCEED TLV/PEL. <10X PEL, USE AN N95 QUARTER OR HALF MASK RESPIRATOR; <50X PEL, USE A FULL FACE RESPIRATOR EQUIPPED WITH N95 FILTERS; <200X PEL, USE A POWERED AIR PURIFYING RESPIRATOR (POSITIVE PRESSURE) WITH N95 FILTERS; >200X PEL, USE A FULL FACE, TYPE C SUPPLIED AIR RESPIRATOR (CONTINUOUS FLOW MODE).

Glove Protection:

NEOPRENE OR NITRILE RUBBER GLOVES IF REPEATED OR PROLONGED SKIN CONTACT IS LIKELY.

Eye Protection:

SAFETY GLASSES WITH SIDE SHIELDS IF THE METHOD OF USE PRESENTS THE LIKELIHOOD OF EYE CONTACT.

Other Protection:

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

Section X - Storage and Handling Information

Storage Temperature

Max: 100°F Min: 35°F

Storage Conditions

[√] Indoors [ ] Outdoors [ ] Heated [ ] Refrigerated

Precautions to be Taken in Handling and Storing:

ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. AVOID CREATING DUSTY CONDITIONS. SEAL BROKEN BAGS IMMEDIATELY. ALTHOUGH THE RISK OF A DUST EXPLOSION IS LOW, IMPLEMENT THE FOLLOWING SAFETY MEASURES AS A PRECAUTION: 1) BOND, GROUND, AND PROPERLY VENT CONVEYORS, DUST CONTROL DEVICES, AND OTHER TRANSFER EQUIPMENT; 2) ELIMINATE IGNITION SOURCES (SPARKS, STATIC BUILDUP, EXCESSIVE HEAT); 3) PROHIBIT FLOW OF POWDER OR DUST THROUGH NON-CONDUCTIVE DUCTS, VACUUM HOSES OR PIPES, ETC.; ONLY USE GROUNDED, ELECTRICALLY CONDUCTIVE TRANSFER LINES WHEN PNEUMATICALLY CONVEYING PRODUCT; 4) STAY BELOW THE MINIMUM EXPLOSIVE CONCENTRATION BY PREVENTING ACCUMULATION OF DUST (USE WELL-VENTILATED CONDITIONS, VACUUM SPILLS PROMPTLY, CLEAN OVERHEAD HORIZONTAL SURFACES); 5) EXERCISE CARE WHEN EMPTYING CONTAINERS, SWEEPING, MIXING, OR DOING OTHER TASKS WHICH CAN CREATE DUST; 6) USE INERT GAS BLANKETING WHEN USE CONDITIONS OR PROCESSES WARRANT.

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

Chemical Name	CAS Number	Upper % Limit
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, ACGIH, 2006.
2. OSHA PEL.
3. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFODisc, 2006.
4. VENDOR'S MSDS.

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, FLAM/FLAMM:FLAMMABLE, TOX:TOXIC, IHL:INHALATION, COMB:COMBUSTIBLE, CORR:CORROSIVE, CARC:CARCINOGENIC, N/A:NOT APPLICABLE, N/E:NOT ESTABLISHED, COC:CLEVELAND OPEN CUP, PMCC:PENSKY-MARTIN CLOSED CUP, TCC:TAGLIABUE CLOSED CUP, LEL:LOWER EXPLOSION LIMIT, UEL:UPPER EXPLOSION LIMIT, HMN:HUMAN, IARC:INTERNATIONAL AGENCY FOR THE RESEARCH ON CANCER, NFPA:NATIONAL FIRE PROTECTION ASSOCIATION, ORL:ORAL, NTP:NATIONAL TOXICOLOGY PROGRAM, OSHA:OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, ACGIH:AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, TLV:THRESHOLD LIMIT VALUE, PEL:PERMISSIBLE EXPOSURE LIMIT, STEL:SHORT-TERM EXPOSURE LIMIT, MLD:MILD, MOD:MODERATE, SEV:SEVERE, MUT:MUTAGENIC, ASPHYX:ASPHYXIANT, PNOC:PARTICULATES NOT OTHERWISE CLASSIFIED, PNOR:PARTICULATES NOT OTHERWISE REGULATED, PNOS:PARTICLES (INSOLUBLE) NOT OTHERWISE SPECIFIED, SDT:STANDARD DRAIZE TEST

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