Supercedes Date 05/17/2007 **Issuing Date** 05/20/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name SUPER CHEM-ZYME V PLUS
Recommended Use Flow improver Use in drains
Product Code 0092
Chemical Nature Bacteria suspension

Information on Manufacturer

CHEMSEARCH DIV. OF NCH CORP.
BOX 152170
IRVING, TX 75015

Emergency Telephone Number

CHEMTREC ® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING
May cause skin irritation
Causes eye irritation
May cause respiratory tract irritation
May be harmful if swallowed

Color Light brown **Physical State** Liquid **Odor** Citrus

Potential Health Effects

Principle Route of Exposure Skin contact, Eye contact, Inhalation.
Primary Routes of Entry Inhalation
Acute Effects
Eyes Causes eye irritation.
Skin May cause skin irritation. Contains. bacteria.
Inhalation May cause irritation of respiratory tract. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic Toxicity None known
Target Organ Effects Central nervous system, Liver, Kidney.
Aggravated Medical Conditions Respiratory disorders, Skin disorders, Liver disorders, Kidney disorders.
Potential Environmental Effects See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Cocamidopropyl betaine	61789-40-0
Isopropyl alcohol	67-63-0
Sodium chloride	7647-14-5
Bacillus species	NOT APPLICABLE

4. FIRST AID MEASURES

General Advice Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.
Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.
Skin Contact Wash off with soap and plenty of water. Get medical attention if irritation develops and persists.
Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms occur.
Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention if symptoms occur.
Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point >201°F/>94°C **Method** Seta closed cup
Autoignition Temperature No information available.
Flammability Limits in Air % Mixture. **Upper** 12.7 **Lower** 2.0
Suitable Extinguishing Media
Water spray. Foam. Alcohol-resistant foam. Dry chemical. Carbon dioxide (CO2). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards arising from the chemical
Material can create slippery conditions.
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.

NFPA	**Health** 1	**Flammability** 1	**Instability** 0
HMIS	**Health** 1	**Flammability** 1	**Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
Environmental Precautions No special environmental precautions required. Do not flush into surface water or sanitary sewer system.
Methods for Containment Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Methods for Cleaning Up Pick up and transfer to properly labeled containers.
Neutralizing Agent Not applicable.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.

Storage Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not freeze.

Storage Temperature **Minimum** 35°F/2°C **Maximum** 120°F/49°C

Storage Conditions **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Cocamidopropyl betaine	No data available	No data available	No data available
Isopropyl alcohol	400 ppm STEL : 200 ppm TWA	400 ppm STEL : 200 ppm TWA	400 ppm STEL : 200 ppm TWA
Sodium chloride	No data available	5 mg/m^3 PNOR (as solid)	No data available
Bacillus species	No data available	No data available	No data available

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.

Skin Protection For prolonged or repeated contact, use protective gloves

Respiratory Protection In case of insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Viscosity**	Slight Viscous
Color	Light brown	**Odor**	Citrus
Appearance	Opaque	**pH**	9
Specific Gravity	1.04	**Evaporation Rate**	0.6 (Butyl acetate=1)
Percent Volatile (Volume)	93.3	**VOC Content (%)**	1.4
VOC Content (g/l)	14.6	**Vapor Pressure**	16.7 mmHg @ 70 °F
Vapor Density	0.6 (Air = 1.0)	**Solubility**	Moderately soluble
Boiling Point/Range	210°F/99°C		

10. STABILITY AND REACTIVITY

Chemical Stability Stable. Hazardous polymerization does not occur.

Conditions to Avoid Extremes of temperature and direct sunlight, Do not freeze.

Incompatible Products Strong oxidizing agents, Reducing agents, Biocides, Chlorine-based bleaching agents.

Hazardous Decomposition Products Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Ammonia.

Possibility of Hazardous Reactions None under normal processing.

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Cocamidopropyl betaine	4900 mg/kg (Rat)	no data available	no data available	no data available	no data available
Isopropyl alcohol	4396 mg/kg (Rat)	12870 mg/kg (Rabbit) 12800 mg/kg (Rat)	72.6 mg/L (Rat) 4 h	no data available	no data available
Sodium chloride	3 g/kg (Rat)	10 g/kg (Rabbit)	42 g/m^3 (Rat) 1 h	no data available	no data available
Bacillus species	no data available	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Cocamidopropyl betaine	no data available	no data available	no data available	no data available	no data available
Isopropyl alcohol	no data available	no data available	no data available	no data available	eyes, respiratory system, skin, kidneys
Sodium chloride	no data available	no data available	no data available	no data available	no data available
Bacillus species	no data available	no data available	no data available	no data available	no data available

Carcinogenicity There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
Cocamidopropyl betaine	not applicable	not applicable	not applicable	not applicable	not applicable
Isopropyl alcohol	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium chloride	not applicable	not applicable	not applicable	not applicable	not applicable
Bacillus species	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Cocamidopropyl betaine	EC50 1.0 - 10.0 mg/L Desmodesmus subspicatus 72 h EC50= 0.55 mg/L Desmodesmus subspicatus 96 h	LC50= 2 mg/L Brachydanio rerio 96 h LC50 1.0-10.0 mg/L Brachydanio rerio 96 h	no data available	EC50 = 6.5 mg/L 48 h	N/A
Isopropyl alcohol	EC50> 1000 mg/L Desmodesmus subspicatus 72 h EC50> 1000 mg/L Desmodesmus subspicatus 96 h	LC50= 11130 mg/L Pimephales promelas 96 h LC50= 9640 mg/L Pimephales promelas 96 h LC50> 1400000 µg/L Lepomis macrochirus 96 h	EC50 = 35390 mg/L 5 min	EC50 = 13299 mg/L 48 h	0.05 at 25 °C
Sodium chloride	no data available	LC50 5560-6080 mg/L Lepomis macrochirus 96 h LC50= 12946 mg/L Lepomis macrochirus 96 h LC50 4747-7824 mg/L Oncorhynchus mykiss 96 h LC50= 7050 mg/L Pimephales promelas 96 h LC50 6020-7070 mg/L Pimephales promelas 96 h LC50 6420-6700 mg/L Pimephales promelas 96 h	no data available	EC50 340.7 - 469.2 mg/L 48 h EC50 = 1000 mg/L 48 h	N/A
Bacillus species	no data available	no data available	no data available	no data available	N/A

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

Inventories
TSCA Complies
DSL Complies

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Isopropyl alcohol	67-63-0	1-5	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Cocamidopropyl betaine	Not applicable	Not applicable
Isopropyl alcohol	Not applicable	Not applicable
Sodium chloride	Not applicable	Not applicable
Bacillus species	Not applicable	Not applicable

Canada

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.

WHMIS Hazard Class
D2B Toxic materials

16. OTHER INFORMATION

Prepared By	Dan Hollas
Supercedes Date	05/17/2007
Issuing Date	05/20/2010
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

CHEMSEARCH DIV. OF NCH CORP. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.