

MATERIAL SAFETY DATA SHEET

Product name: **GZYME 3X**
Last revised date: 5 December 2013
Print date: 18 December 2013

1. SUBSTANCE AND SUPPLIER IDENTIFICATION

PRODUCT NAME: Gzyme 3x

MANUFACTURER: Germiphene Corporation
ADDRESS: 1379 Colborne Street East, Brantford, Ontario N3T 5M1, Canada
PHONE: 519-759-7100
FAX: 519-759-1625

EMERGENCY PHONE: CANUTEC 613-996-6666

PRODUCT USE: Concentrated Gzyme ultrasonic cleaner

2. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT: Propylene glycol
CAS NO 57-55-6 **% WT** 35 - 42
HAZARDOUS: May cause irritation to skin and eyes.

INGREDIENT: Triethanolamine
CAS NO 102-71-6 **% WT** 7 - 15
HAZARDOUS: May cause irritation to skin and eyes.

INGREDIENT: Protease
CAS NO 9014-01-1 **% wt** 1-10
HAZARDOUS: May cause irritation to skin and eyes.

INGREDIENT: Boric acid
CAS NO 10043-35-3 **% WT** 2-6
HAZARDOUS: May cause irritation to skin, eyes and respiratory tract.

INGREDIENT: Lipase
CAS NO 9001-62-1 **% WT** <1
HAZARDOUS: Inhalation of dust/aerosols may induce sensitization in susceptible individuals. Subsequent exposures may cause allergic reactions in sensitized individuals.

INGREDIENT: Amylase **% WT** <1
CAS NO 9000-90-2
HAZARDOUS: Inhalation of dust/aerosols may induce sensitization in susceptible individuals. Subsequent exposures may cause allergic reactions in sensitized individuals.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Harmful if swallowed. May cause eye and skin irritation.
INHALATION: May cause respiratory tract irritation.
INGESTION: May cause gastro-intestinal upset.
SKIN ABSORPTION: No adverse effects with normal skin.
SKIN CONTACT: May cause skin irritation.

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EYE CONTACT: Eye irritant in case of direct contact.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with water for at least 15 minutes, holding the eyelids open. If irritation persists, contact physician.
SKIN: Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use.
INHALATION: Remove person to fresh air.
INGESTION: Induce vomiting immediately as directed by medical personnel. Contact a physician immediately.

5. FIREFIGHTING MEASURES

EXTINGUISHING MEDIA: Apply all-purpose type foams by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires. Water is suitable.
HAZARDOUS DECOMPOSITION PRODUCTS: Ammonia, nitrous oxides, carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Contain spilled material. Provide adequate ventilation. Spill should be collected in suitable containers or absorbed on a suitable absorbent material for subsequent disposal. Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Keep away from heat in a cool well-ventilated area. Protect from freezing. Keep container closed when not in use. Avoid breathing vapours. Avoid contact with eyes.

OTHER PRECAUTIONS: Good personal hygiene practices are suggested.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION: Use adequate ventilation.
RESPIRATORY PROTECTION: Avoid breathing vapours.
EYE PROTECTION: Avoid contact with eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear blue to green colored liquid
ODOUR: Mild
PHYSICAL STATE: Liquid

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PH @ 22°C: 7.00 - 9.00
BOILING POINT: Above 100°C
MELTING POINT: N/Av
FREEZING POINT: Below 0°C
SPECIFIC GRAVITY @ 25 ± 1°C: 1.000 - 1.200
EVAPORATION RATE: N/Av
SOLUBILITY IN WATER: Soluble
PROTEOLYTIC ACTIVITY: Min 0.217 AU/ml

10. STABILITY AND REACTIVITY

STABILITY: N/Av
CONDITIONS TO AVOID (STABILITY): N/Av
INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing materials

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Burning can produce carbon monoxide and carbon dioxide, ammonia and nitrous oxides (small amounts).

11. TOXICOLOGICAL INFORMATION

PROPYLENE GLYCOL Oral rat LD50 20g/kg
Dermal rabbit LD50 20.8g/kg
Eye irritation rabbit(Draize) 500 mg/24h, mild.

TRIETHANOLAMINE Oral rat LD50 4920 mg/kg
Oral rabbit LD50 5160 mg/kg
Oral mouse LD50 7400 mg/kg
Oral guinea pig LD50 5300 mg/kg
Dermal rabbit LD50 > 20 mL/kg
Skin irritation rabbit 560 mg/24h, mild
Eye irritation rabbit 20 mg, severe

BORIC ACID Oral rat LD50 2660 mg/kg
Oral woman LDLo 200 mg/kg
Investigated as a mutagen, tumorigen, reproductive effector.

12. ECOLOGICAL INFORMATION

N/Av

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: According to state, federal, provincial, and local regulations.

14. TRANSPORT INFORMATION

TRANSPORT HAZARD CLASS: N/Av

15. REGULATORY INFORMATION

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N/Av

16. OTHER INFORMATION

Prepared by: Germiphene Technical Department

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