

Approved: July 29, 2009

NFPA
Flammability

1	0
1	0
Health	Reactivity

0 = Minimal Hazard
4 = Severe Hazard

MATERIAL SAFETY DATA SHEET* (MSDS)
International Products Corporation

ZYMIT®

LOW-FOAM ENZYME CLEANER

HMIS

Health – 2
Flammability – 0
Reactivity – 0
Personal Protection – B

0 = Minimal Hazard
4 = Severe Hazard
B = Safety Glasses & Gloves

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME ZYMIT®
CHEMICAL FAMILY Mixture
CHEMICAL NAME Low Foam Enzyme Cleaner
ISSUE DATE OF MSDS July 15, 2009

MANUFACTURER: International Products Corporation
201 Connecticut Drive
Burlington, NJ 08016, USA

EMERGENCY TELEPHONES:
Transportation:
CHEMTREC
(800) 424-9300
(Calls within USA & Canada)
(703) 527-3887
(Calls from outside the USA)

Tel: (609) 386-8770
Fax: (609) 386-8438
E-mail: mkt@ipcol.com

UK BRANCH:
Unit 5, Green Lane Bus. Park
238 Green Lane
London, SE9 3TL, United Kingdom
Tel: 020 – 8857-5678
Fax: 020 – 8857-1313
E-mail: saleseurope@ipcol.com

4. FIRST AID MEASURES

EYE CONTACT Immediately flush eyes with plenty of water. Get medical attention if irritation develops or persists.

SKIN CONTACT Remove contaminated clothing. In the event of skin contact, flush skin with water for 20 minutes. Get medical attention if irritation develops or persists.

INHALATION If exposed to excessive levels of fumes, remove to fresh air. Get medical attention if cough or other symptoms develop.

INGESTION Do not induce vomiting. Call physician if pain or discomfort develops. Never give anything by mouth if victim is rapidly losing consciousness or is unconscious or convulsing.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	EEC	
		Hazard Identity	Concentration Range (w/w)
1,2-Dihydroxypropane	57-55-6	Xi; R-36, R-38	10 – 30%
Protease enzyme	Trade secret*	Xn; R-42	0.1 – 1.0%
Amylase enzyme	Trade secret*	Xn; R-42	0.1 – 1.0%
Amine salt	Trade secret*	Xi; R-36/37/38	3.0 – 7.0%

* Canadian Trade Secret # 6720, filing date 10/02/06

5. FIRE FIGHTING MEASURES

Nonflammable aqueous cleaner.

FLASH POINT None. (ASTM D56).

LFL Not applicable.

UFL Not applicable.

EXTINGUISHING MEDIA Use alcohol foam, carbon dioxide, or water spray to extinguish flames.

FIRE FIGHTING INSTRUCTION As in any fire, wear self-contained breathing apparatus, pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear. Water runoff may cause environmental damage. Dike and collect water used to fight fire.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Skin irritant. Enzymes are respiratory sensitizers.
Avoid inhalation of mists.

POTENTIAL HEALTH EFFECTS

EYE CONTACT Contact may cause irritation.

SKIN CONTACT Prolonged or repeated contact may cause irritation.

INHALATION Mists may cause sensitization.

INGESTION No hazard in normal industrial use.

CARCINOGENICITY:
NTP No ingredients are listed.
IARC No ingredients are listed.
OSHA No ingredients are listed.

CHRONIC EFFECTS Not determined.

TARGET ORGANS Not determined.

SIGNS AND SYMPTOMS Eye and skin irritation (redness or swelling)

POTENTIAL ENVIRONMENTAL EFFECTS
None known.

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 Personal Protection. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.

7. HANDLING AND STORAGE

HANDLING Avoid contact with eyes, skin and clothing. Use in a well-ventilated area. Avoid product mists.

STORAGE Store in a cool place in original container and protect from sunlight. Refrigeration is recommended. Keep container closed when not in use.

SHELF LIFE Two years from date of manufacture when stored in original sealed container at recommended storage temperature range.

STORAGE TEMPERATURE 5 – 30°C (41 – 86°F)

*ANSI Z400.1-1998 format

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

ENGINEERING CONTROLS Good general ventilation should be sufficient to control airborne levels.

RESPIRATORY PROTECTION For most situations, no respiratory protection should be needed.

SKIN PROTECTION Wear chemical-resistant gloves.

EYE PROTECTION Wear safety glasses with sideshields (or goggles). Contact lenses should not be worn.

GENERAL HYGIENE CONSIDERATIONS There are no known health hazards associated with this material when used as recommended. The following general hygiene considerations are recognized as common, good industrial hygiene practices:

- Wash hands after use and before eating.
- Avoid breathing vapors.
- Wear safety glasses and gloves.

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EXPOSURE LIMITS Not established for product as whole.

Ingredients	ACGIH (TLV)
Protease enzyme	0.00006 mg / m ³

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Yellow Liquid.

ODOR Slight fermentation.

pH (neat) ca. 7.5

BOILING POINT ca. 100°C (212°F)

FREEZING POINT ca. -15°C (5°F)

SOLUBILITY IN WATER Complete

SPECIFIC GRAVITY (water = 1) 1.05@25°C

10. STABILITY AND REACTIVITY

STABILITY Stable Liquid.

HAZARDOUS POLYMERIZATION Will not occur.

INCOMPATIBILITIES Strong oxidizers.

DECOMPOSITION PRODUCTS Oxides of nitrogen, carbon and sulfur are hazardous decomposition products of this product.

11. TOXICOLOGICAL INFORMATION

Eye: Not an irritant per OECD Guideline No. 405

Skin: Irritant per OECD Guideline No. 404 (Non-irritant at recommended use concentration of 2% w/w.)

Oral: LD₅₀ is greater than 2g/kg (rat) per OECD Guideline No. 401.

Cytotoxicity: A 2% w/w solution shows no evidence of cell lysis or toxicity (USP Elution Method).

12. ECOLOGICAL INFORMATION

Contains no CFCs, ODCs, phosphates, silicates, halogens, or phenols.

13. DISPOSAL CONSIDERATIONS

Zymit® Low-Foam is not considered a hazardous waste under Federal Hazardous Waste Regulation 40 CFR 261. Please be advised, however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

Zymit® Low-Foam liquid waste can be landfilled or incinerated. (Note: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.)

14. TRANSPORT INFORMATION

A. USA

D.O.T. SHIPPING Not regulated.

TECHNICAL SHIPPING NAME Liquid Detergent

U.N./N.A. NUMBER None

D.O.T. LABEL None.

D.O.T. PLACARD None.

FREIGHT CLASS BULK Not Applicable

FREIGHT CLASS PACKAGE Class 55 — Low foam enzyme cleaner

PRODUCT LABEL Concentrated low-foam enzyme cleaner

B. CANADA: TDG Not regulated.

C. ENGLAND: APPROVED CARRIAGE LIST Not regulated.

15. REGULATORY INFORMATION

A. USA

TSCA STATUS All ingredients are listed on the TSCA inventory.

SARA TITLE III, 302/303 EHS None.

SARA TITLE III, 304, HS None.

SARA TITLE III, 313 None.

B. CANADA

DSL All ingredients are listed on the Domestic Substance List.

WHMIS Classification D.2.B.

C. EC

EINECS All ingredients are listed.

EC Classification Skin irritant (Xi).

RoHS Directive Zymit Low-Foam does not contain any ingredients listed in 2002/95/EC.

REACH Directive All ingredients comply with EC 1907/2006.

D. CHIPS Skin — non-significant irritant.

E. HMIRC Registration Number: 6720
Date of filing: 10/2/06

For details on specific requirements, contact the appropriate state agency.

16. OTHER INFORMATION

PREPARED BY K. Wyrofsky, President
Tel: 609-386-8770

APPROVED BY T. McGuckin, VP of Quality & Safety
Tel: 609-386-8770

APPROVAL DATE July 15, 2009

NOTE: All data presented here are for the full-strength product, unless otherwise noted. However, recommended usage is as a 1-2% w/w solution in water.

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