



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
Avon, New York 14414
(716) 226-6177

MSDS No. PP 53
Effective Date March 1, 1999

SECTION V HEALTH HAZARD DATA

PP 53

Threshold Limited Value

RTECS No. RU4950000. Oral-rat TDLo: 375 mg/kg (13D preg.) TFX: TER. ipr-rat TDLo: 375 mg/kg (8D preg.) TFX: TER. Oral-rbt TDLo: 1000 mg/kg (16-18D preg.) TFX: TER. ipr-rbt TDLo: 1000 mg/kg (17-20D preg.) TFX: TER.

Effects of Overexposure

TARGET ORGANS AFFECTED: None known. Prolonged contact may cause irritation to skin, eyes, and mucous membranes. The toxicological properties of this material have not been thoroughly investigated. Exercise appropriate procedures to minimize opportunities for direct contact with the skin or eyes and to prevent inhalation of dust. It has been found, other enzymes have caused allergic skin and respiratory reactions.

Emergency and First Aid Procedures

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **EYES:** Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if any symptoms are present after washing. **SKIN:** Immediately flush skin with plenty of water for at least 15 minutes and get medical attention if any symptoms are present after washing. **INGESTION:** If conscious, give water or milk to drink. Get immediate attention. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	
	X	Excessive temperature and heat.

Incompatibility (Materials to Avoid)	Strong oxidizers.
--------------------------------------	-------------------

Hazardous Decomposition Products	Combustion will produce carbon dioxide and probably carbon monoxide. Oxides of nitrogen and sulfur may also be present.
----------------------------------	---

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Eliminate sources of ignition. Avoid creating dusty conditions. Sweep up and place in a suitable container for incineration. Wash spill area with soap and water.
---	---

Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Small amounts: Flush material to sewer with large amounts of water. Large amounts: Dispose of in an approved incinerator or contract with a licensed waste disposal service.
-----------------------	---

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)		None should be needed in normal laboratory handling. An appropriate NIOSH/MSHA-approved respirator for dust should be worn if needed.			
Ventilation	Local Exhaust	If needed.	Special	No.	
	Mechanical (General)	Recommended.	Other	No.	
Protective Gloves		Rubber for sensitive skin.	Eye Protection		Chemical safety glasses.
Other Protective Equipment	Smock, apron, eye wash station, ventilation hood, proper gloves.				

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Store in a cool, dry area away from direct sunlight and sources of heat. Wash thoroughly after handling.
---	--

Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals.
-------------------	---

Avoid making dust. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	No. 3	Date	3/1/99	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.							

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	PAPAIN
Chemical Synonyms	Papayotin, Vegetable Pepsin
Formula	Natural Product.
Unit Size	up to 500 grams
C.A.S. No.	9001-73-4

CHEMTREC
800-424-9300
Day 716-226-6177

NFPA HAZARD RATING
LEAST SLIGHT MODERATE HIGH EXTREME
0 1 2 3 4

Health	0
Fire	1
Reactivity	0

HMIS *

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Papain	100%	None established.
LOW HAZARD FOR USUAL LABORATORY HANDLING.		

SECTION III PHYSICAL DATA

Melting Point (°F)	Decomposes.	Specific Gravity (H ₂ O = 1)	Data not listed.
Boiling Point (°F)	Decomposes.	Percent Volatile by Volume (%)	Approx. 10%
Vapor Pressure (mm Hg)	Data not listed.	Evaporation Rate (≈1)	Non-volatile.
Vapor Density (Air=1)	Data not listed.		
Solubility in Water	Appreciable.		
Appearance & Odor	White to grey; slight hygroscopic powder; faint characteristic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Not applicable.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Extinguisher Media	Foam; carbon dioxide (CO ₂); water mist.				

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may cause production of hazardous decomposition products; can react vigorously with oxidizing materials. This material, is capable of creating a dust explosion.

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20