

# Material Safety Data Sheet

Data last revised: JAN. 8, 2002

No.

<b>I. General Information</b>			
Chemical Name & Synonyms:	TRANSGLUTAMINASE	Trade Name & Synonyms:	Activa - RM
Chemical family:	ENZYME	Manufacturer:	AJINOMOTO CO., INC.
Formula:	N/A	Manufacturer's Address:	15-1, 1-CHOME, KYOUBASHI, CHUO-KU, TOKYO 101-8315, JAPAN
IUB No.:	2. 3. 2. 13	Manufacturer's Telephone Number:	+81-3-5250-8146
CAS No.:	80146-85-6	Emergency Telephone Number:	IN USA CALL 201-261-1789
<b>II. Ingredients</b>			
Principal Hazardous Components	Percent	Threshold Limit Value (units)	
ENZYME			
SODIUM CASEINATE			
MALTODEXTRIN			
<b>III. Physical Data</b>			
Boiling Point( ? ):	N/A	Specific Gravity (H <sub>2</sub> O=1):	N/A
Vapor Pressure (mmHg):	N/A	percent Volatile By Volume (%):	N/A
Vapor Density (Air=1):	N/A	Evaporation Rate ( =1):	N/A
Solubility in Water:	SOLUBLE	pH	N/A
Appearance & Odor:	CREAM COLORED POWDER, SLIGHT ODOR.		
<b>IV. Fire &amp; Explosion Hazard Data</b>			
Flash Point(test Method):	NONE	Auto ignition Temperature:	NONE
Flammable Limits:	NONE	LEL	VEL
Extinguishing media:	WATER, POWDER, FORM		
Special Fire Fighting Procedures:	NONE		
Unusual Fire & Explosion Hazards:	NONE		
<b>V. Health Hazard Data</b>			
OSHA Permissible Exposure Limi	N/A	ACGIH Threshold Limit Value:	N/A
Carcinogen-NTP Program:	N/A	Carcinogen-IARC Program:	N/A
Symptoms of Exposure:	MAY CAUSE NOSE, EYE, SKIN AND RESPIRATORY IRRITATION OR ALLERGIC REACTION.		
Medical Conditions Aggravated By Exposure:	a) NOSE, EYE, AND SKIN RESPIRATORY IRRITATION    b) COUGHING c) ASTHMA    d) SYMPTOMS SIMILAR TO A COLD		
Primary Route(s) of Entry:	? SKIN CONTACT ? EYE CONTACT? INHALATION ? SWALLOWING		
Emergency First Aid:	a) IN CASE OF SKIN CONTACT, WASH OFF WITH WATER . SHOULD IRRITATION OCCUR SEEK MEDICAL ADVICE. b) IN CASE OF EYE CONTACT, WASH WITH LARGE AMOUNT OF WATER AND SEEK MEDICAL ADVICE. c) IN CASE OF INHALATION, EVACUATE THE AREA AND BREATHE FRESH AIR. IF SYMPTOMS OF SENSITIZATION OCCUR, SEEK MEDICAL ADVICE. d) IN CASE OF SWALLOWING, DRINK PLENTY OF WATER AND SEEK MEDICAL ADVICE IN CASE OF INDISPOSITION.		

<b>VI. Reactivity Data</b>			
Stability		Unstable	Condition To Avoid: NONE
	×	Stable	
Incompatibility			Materials To Avoid: NONE
Hazardous Polymerization		May Occur	Conditions To Avoid: NONE
	×	Will Not Occur	
Hazardous Decomposition Products:			NONE
<b>VII. Environmental Protection Procedures</b>			
Spill Respose: CAREFULLY COLLECT SPILLAGE AND RINSE AREA THOUROUGHLY WITH WATER. ( IN CASE OF LARGE QUANTITY, IT MAY INCREASE THE RISK OF HAZARD, AND PROTECTIVE CLOTHING MAY BE RECOMMENDED)			
Waste Disposal Method: CONFORM TO LOCAL, STATE, AND FEDERAL REGULATIONS. DISSOLVE SPILLAGE IN WATER BEFORE DISPOSAL			
<b>VIII. Special Protection Information</b>			
Eye Protection: SAFTY GLASSES		Skin Protection: LATEX GLOVES	
Respiratory Protection(Specific Type): FULL FACE MASK		Ventilation Recommended: LOCAL EXHAUST	
Other Protection: OVERALL PROTECTIVE CLOTHING			
<b>IX. Special Precaution</b>			
Hygienic Practices in Handling & Storage: AVOID SPILLS, KEEP CONTAINERS CLOSED. STORE IN DRY COOL PLACE.			
Precautions For Repair & Maintenance of Contaminated Equipment: CLEANING SHOULD BE ARRANGED BEFORE WORK IS COMMENCED. RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING NEEDED. CLEANING OF ENZYME-CONTAMINATED COMPONENTS SHOULD BE PERFORMED BY TRAINED PERSONNEL.			
Othre Precautions: AVOID RAISING DUST OR AEROSOL. AVOID INHALATION OF DUST OR AEROSOL.			

The information and recommendation contained in this Material Safety Data Sheet of Ajinomoto's enzyme preparation is to the best of our knowledge reliable as of the data of issue. However, the information and recommendation are not to be construed as any warranty or guarantee. Since the condition of use are beyond our control, users shall be responsible for determining the conditions of safe use of the enzyme preparation.