



ZYME-O-AROMA PLUS LIQUID

Safety Data Sheet

Date of first issue: 08 July 2015 | Last review date: 21 Jul. 15 | Page 1 of 5

1.	IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING																												
<p>Product identification</p> <p>Product name ZYME-O-AROMA PLUS LIQUID Synonyms Standardised liquid enzyme preparation Chemical formula Not applicable Relevant identified uses and uses advised against Recommended use Enzyme preparation for use in wine making. Details of the supplier of the safety data sheet Supplier ATPGroup, Inc. 1230 Shiloh Rd. Windsor, CA 95492 Ph. 707-836-6840 Fax 707-836-6843</p> <p>Email address of the person responsible for this SDS compliance@atpgroup.com Emergency phone number Emergency phone number Ph. 800-424-9300 - CHEMTREC (24/7) - within USA Canada or call ATPGroup, Inc.</p>																													
2.	HAZARD IDENTIFICATION																												
<p>Classification of the substance or mixture Product definition Mixture Classification: According to Regulation (EC) No. 1272/2008 [CLP/GHS] : Respiratory sensitizer category 1, H334 The product is classified as hazardous. See section 16 for the full text of the H-statements declared above. According to the EU DIR 1999/45 [DPD] and its amendments, the product is classified as dangerous; R-42. See section 16 for the full text of the R-phrases. Label elements Hazard pictograms</p> <div style="text-align: center;">  </div> <p>Signal word Danger Hazard statements H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled. Precautionary statements Prevention P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P285 - In case of inadequate ventilation wear respiratory protection. Response P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P342 + 311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. Storage Not applicable. Disposal P501 - Dispose of contents/container according to the local regulations. Hazardous ingredients Pectin-lyase. Other hazards Other hazards that do not result in classification The mixture does not contain and is not considered as a PBT or vPvB substance.</p>																													
3.	COMPOSITION / INFORMATION ON INGREDIENTS																												
<p>Substance/Mixture Mixture</p> <table border="1"> <thead> <tr> <th>Ingredient name</th> <th>CAS Number</th> <th>%</th> <th>EINECS Nr</th> <th>IUB number</th> <th>Classification acc. REG 1272/2008</th> <th>Classification acc. EU DIR 1999/45</th> </tr> </thead> <tbody> <tr> <td>KCl (E508)</td> <td>7447-40-7</td> <td>15-19</td> <td>231-211-8</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Pectin-lyase</td> <td>9033-35-6</td> <td>1-15</td> <td>232-894-5</td> <td>4.2.2.10</td> <td>H334</td> <td>R42</td> </tr> <tr> <td>β-glucosidase</td> <td>9001-22-23</td> <td>1-15</td> <td>232-589-7</td> <td>3.2.1.21</td> <td>H334</td> <td>R42</td> </tr> </tbody> </table> <p>There are no additional ingredients present which, within the current knowledge of the supplier and in the concentration applicable, are classified as hazardous to health or the environment, are PBT's or vPvB's or have been assigned a workplace exposure limit and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.</p>		Ingredient name	CAS Number	%	EINECS Nr	IUB number	Classification acc. REG 1272/2008	Classification acc. EU DIR 1999/45	KCl (E508)	7447-40-7	15-19	231-211-8	-	-	-	Pectin-lyase	9033-35-6	1-15	232-894-5	4.2.2.10	H334	R42	β-glucosidase	9001-22-23	1-15	232-589-7	3.2.1.21	H334	R42
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4.	FIRST AID MEASURES																												
<p>Description of first aid measures:</p> <p>Eye contact Immediately rinse with water for at least 10 minutes and occasionally lift eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.</p> <p>Inhalation Remove from exposure into fresh air immediately and rest in a position comfortable for breathing. If irritation or allergic response occurs, consult a doctor.</p>																													



ZYME-O-AROMA PLUS LIQUID

Safety Data Sheet

Date of first issue: 08 July 2015 | Last review date: 21 Jul. 15 | Page 2 of 5

4.	FIRST AID MEASURES (continued)
Continuation of page 1	
Skin contact	Wash with soap and water. Should irritation occur, seek medical advice.
Ingestion	Rinse mouth and throat thoroughly with water.
Protection of first-aiders	Work with properly trained first aid personnel. If it is suspected that dust, mist, vapours or fumes are present, wear appropriate mask and/or self-contained breathing apparatus.
Most important symptoms and effects, both acute and delayed	
<u>Potential acute health effects</u>	
Eye contact	No known significant effects or critical hazards.
Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
<u>Over-exposure signs/symptoms</u>	
Eye contact	No specific data.
Inhalation	Adverse symptoms may include the following: Wheezing and breathing difficulties; asthma
Skin contact	No specific data.
Ingestion	No specific data.
Indication of any immediate medical attention and special treatment needed	
Notes to medical doctor	Treat symptomatically. Contact poison treatment or allergen specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.
5.	FIRE-FIGHTING MEASURES
Extinguishing media	
Small fire	
Suitable	Water, foam, dry chemicals or CO ₂
Not suitable	None known.
Large fire	
Suitable	Use extinguishing media suitable for the surrounding materials.
Not suitable	None known.
Special hazards arising from the substances or mixture	
Hazards from the substance or mixture	In case of a fire or if heated, a pressure increase will occur; the container may burst.
Hazardous combustion products	In the event of a fire, may produce toxic and/or corrosive decomposition products.
Advice for fire fighters	
Special protective actions for fire fighters	Fire water contaminated with this material must be contained and prevented from being discharged into any waterway, sewer or drain.
Special protective equipment for fire fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire fighters (including helmets, protective boots, gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
6.	ACCIDENTAL RELEASE MEASURES
Personal precautions, protective equipment and emergency procedures.	
For non-emergency personnel	Work with properly trained personnel and wear appropriate protective gear. Avoid breathing vapour or mist and evacuate surrounding areas. Do not walk through or spread spilt material and provide adequate ventilation. Avoid contact with the eyes, skin and clothing.
For emergency responders	See above and in section 8 in case specialised clothing is needed.
Environmental precautions	
	After spillage avoid creation of aerosols and dust from dried preparation.
Method and materials for containment and cleaning up	
Small accidental spillage or leak	Mop up with appropriate material. Place in an appropriate container. Clean the area affected with plenty of water.
Large spill or leak	Avoid the formation of dust or spray. Prevent spillage into the drains, subsoil or confined areas. Contain if necessary. Mop up the product spilled with inert material (e.g. dry sand or dry earth) and place in a chemical waste container.
Reference to other sections	
	See section 1 for emergency contact information.
	See section 8 for information on appropriate protective materials.
	See section 13 for additional waste treatment information.



ZYME-O-AROMA PLUS LIQUID

Safety Data Sheet

Date of first issue: 08 July 2015 | Last review date: 21 Jul. 15 | Page 3 of 5

7.	HANDLING AND STORAGE													
<p>Precautions for safe handling</p> <p>Protective measures</p> <p>Advice on general occupational hygiene</p> <p>Conditions for safe storage, including any incompatibilities</p> <p>Packaging materials, suitable</p> <p>Specific end uses</p> <p>Recommendations</p> <p>Industrial sector specific solutions</p>	<p>Handle according GMP in a food context. Avoid formation of aerosols t from liquid preparation. Provide for good ventilation of the room when handling the product. If possible use in a closed circuit. Wear appropriate protective and working gear.</p> <p>Eating, drinking and smoking should be prohibited in an area where this product is handled. Further: apply GMP house rules appropriate for any food processing context.</p> <p>Store in the original container; keep in a dry, clean, well ventilated and cool place. Store away from incompatible materials indicated in section 10. Properly reclose after opening and prevent leakage.</p> <p>PE, Polyethylene, high density (PEHD)</p> <p>See separate, product and application specific data sheets and supplier info. Not available</p>													
8.	EXPOSURE CONTROLS/PERSONAL PROTECTION													
<p>Control parameters</p> <p>Occupational exposure limits</p> <p>Recommended procedures including technical and hygienic measures</p> <p>DNELs/DMELs</p> <p>PNECs</p> <p>Exposure controls</p> <p>Appropriate engineering controls</p> <p>Individual protective measures</p> <p>Respiratory protection</p> <p>Skin and body</p> <p>Hand protection</p> <p>Eye protection</p> <p>Exposure controls for environmental protection</p>	<p>No exposure limit known.</p> <p>Product is to be used in well ventilated areas whilst eating, drinking, smoking are to be prohibited. Wash hands after handling the product and before eating or smoking and after using the lavatory and at the end of the day.</p> <p>No DNELs/DMELs available No PNECs available</p> <p>Avoid formation of aerosols and dust from dried preparation. Provide for good ventilation of the room when handling the product. If dust, gas, vapour or mist is generated, use containment measures and local exhaust ventilation or other controls to keep workers exposure of airborne contaminants limited to an absolute minimum.</p> <p>Respirator approved for this type of aerosols and dust (mask P3) Wear appropriate protective clothing Impermeable gloves, rubber or latex. Protecting glasses or eye shield</p> <p>Notify the local authorities in case significant leaks occur that cannot be contained. Waste water is to be evacuated normally to purification plants.</p>													
9.	PHYSICAL AND CHEMICAL PROPERTIES													
<p>Information concerning the essential physical and chemical properties</p> <p>Appearance and state</p> <p>Odour</p> <p>Solubility</p> <p>Melting/freezing point, olfactory threshold, initial boiling point and boiling interval, flashpoint, evaporation rate, flammability(solid, gas), steam pressure, steam density, partition coefficient (n- octanol/water), temperature of breakdown, temperature of auto-flammability, viscosity, explosive properties, oxidising properties: Date are as for any protein and are not relevant in this context.</p> <p>Other information</p>	<p>Whitish to slightly brown liquid.</p> <p>Odour typical for fermentation products.</p> <p>The product is readily soluble and/or miscible in water.</p> <p>No information available</p>													
10.	STABILITY AND REACTIVITY													
<p>Reactivity</p> <p>Chemical stability</p> <p>Possibility of hazardous reactions</p> <p>Conditions to avoid</p> <p>Incompatible materials</p> <p>Hazardous decomposition products</p>	<p>Not relevant.</p> <p>The preparation is stable under normal conditions of storage.</p> <p>Under the normal conditions of storage and use, hazardous reaction will not occur.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p>													
11.	TOXICOLOGICAL INFORMATION													
<p>Acute toxicity</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Product/ingredient name</th> <th style="width: 10%;">Species</th> <th style="width: 10%;">Dose</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Exposure</th> </tr> </thead> <tbody> <tr> <td>ZYME-O-AROMA PLUS LIQUID / pectin lyase, βglucosidase</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> </tbody> </table> <p>Conclusion/Summary</p>	Product/ingredient name	Species	Dose	Result	Exposure	ZYME-O-AROMA PLUS LIQUID / pectin lyase, β glucosidase	-	-	-	-	<p>Not available.</p>			
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ZYME-O-AROMA PLUS LIQUID / pectin lyase, β glucosidase	-	-	-	-										



ZYME-O-AROMA PLUS LIQUID Safety Data Sheet

Date of first issue: 08 July 2015 | Last review date: 21 Jul. 15 | Page 4 of 5

11.	TOXICOLOGICAL INFORMATION (continued)		
Continuation of page 4			
Potential acute health effects			
Eye contact	No known significant effects or critical hazards.		
Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.		
Skin contact	No known significant effects or critical hazards.		
Ingestion	No known significant effects or critical hazards.		
Acute toxicity	No information available.		
Irritation/Corrosion	No known significant data.		
Sensitisation	No specific data available.		
Potential chronic health effects			
Chronic effects	Once sensitised, a strong allergic reaction may occur when subsequently exposed to very low levels.		
Carcinogenicity	Conclusion/Summary: not available.		
Mutagenicity	Conclusion/Summary: not available.		
Teratogenicity	Conclusion/Summary: not available.		
Reproductive toxicity	Conclusion/Summary: not available.		
Specific target organ toxicity	Conclusion/Summary: not available.		
Symptoms related to the physical, chemical and toxicological characteristics			
Eye contact	No specific data.		
Inhalation	Adverse symptoms may include: wheezing and breathing difficulties, asthma.		
Skin contact	No specific data.		
Ingestion	No specific data.		
General	Once sensitised, a severe allergic reaction may occur when subsequently exposed to very low levels.		
Carcinogenicity	No known significant effects or critical hazards.		
Mutagenicity	No known significant effects or critical hazards.		
Teratogenicity	No known significant effects or critical hazards.		
Developmental effects	No known significant effects or critical hazards.		
Fertility effects	No known significant effects or critical hazards.		
12.	ECOLOGICAL INFORMATION		
Toxicity			
Product/ingredient name	Species	Exposure	Result
ZYME-O-AROMA PLUS LIQUID / pectin lyase, β glucosidase	-	-	-
Conclusion/Summary: not available			
Persistence and degradability			
Product/ingredient name	Aquatic half life	Photolysis	Biodegradability
ZYME-O-AROMA PLUS LIQUID / pectin lyase, β glucosidase	-	-	Readily
Conclusion/Summary: not available			
Bio accumulative potential		Conclusion/Summary: not available.	
Mobility in soil			
Soil/water partition coefficient	Not available.		
Mobility	Not available.		
Results of PBT / vPvB assessment			
PBT	Not applicable.		
vPvB	Not applicable.		
Other adverse effects			
No known significant effects or critical hazards.			
Remarks			
The preparation is believed not to be dangerous to the environment with respect to mobility, persistence and degradability, bio-accumulative potential, aquatic toxicity and other data relating to eco-toxicity.			
13.	DISPOSAL CONSIDERATIONS		
Waste treatment methods		Dispose of surplus or non-recyclable residual product by flushing with water into an approved sewer or otherwise in line with local legal requirements.	
Hazardous waste		Empty containers or IBC's may be rinsed and find alternative uses. The classification of the product and/or the packaging material may meet the criteria for hazardous waste.	
Packaging material		P501 - Dispose of contents/container according to the local regulations.	
Special precautions		This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.	



ZYME-O-AROMA PLUS LIQUID

Safety Data Sheet

Date of first issue: 08 July 2015 | Last review date: 21 Jul. 15 | Page 5 of 5

14.	TRANSPORT INFORMATION					
International transport regulations:						
	UN number	UN proper shipping name	Transport hazard class	Packing group	Environmental hazards	Additional information
ADR/RID	Not regulated	-	-	-	No	-
ADN	Not regulated	-	-	-	No	-
IMDG	Not regulated	-	-	-	No	-
IATA	Not regulated	-	-	-	No	-
Special instructions for the user		Transport at the users' premises: ensure transport in closed and upright drums or cartons by qualified and trained personnel aware of what to do in the event of spillage.				
Transport in bulk according Annex II of MARPOL 73/78 and the IBC code		Not available.				
15.	REGULATORY INFORMATION					
Safety, health and environmental regulations/legislation specific for the substance or mixture:						
EU Regulation 1907/2006 (REACH)						
Annex XIV – List of substances subject to authorisation		None of the components are listed.				
Substances of very high concern		None of the components are listed.				
Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles		Not applicable.				
Chemical safety assessment		No chemical safety assessment was needed and/or has been carried out.				
16.	OTHER INFORMATION					
Procedure used to derive the classification according to EU Regulation 1272/2008 [CLP/GLS]						
Product/ingredient name		Classification		Justification		
ZYME-O-AROMA PLUS LIQUID / pectin lyase, β glucosidase		Resp. Sens. 1, H334		Calculation method		
Full text of abbreviated H statements		H334: May cause allergy of asthma symptoms or breathing difficulties if inhaled.				
Full text of classifications [CLP/GLS]		Resp. Sens. 1, H334 RESPIRATORY SENSITIZATION – Category 1.				
Full text of abbreviated R phrases		R42 – May cause sensitisation by inhalation.				
Full text of classifications		Not applicable.				
Alterations compared to previous version		Alterations to the previous version are marked with an *.				
Material for study and training		Enzyme products need handled with care by skilled personnel only. Please consult the 'AMFEP Guide to the Safe handling of Enzymes' (www.amfep.org) for further information. As being linked to AMFEP, the mfg. plant has adopted a strict safety policy and recommends enzyme processing organisations to take note of the information presented by AMFEP, of which this MSDS only is a formal summary.				
Notice to the reader						
The information contained in this Material Safety Data Sheet, as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendations or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of our company, it is the responsibility of the user to determine the conditions of safe and appropriate use of this preparation. The information in this sheet does not represent analytical specifications, for which please refer to our technical data sheets. The format of this SDS references the EC Regulation 1907/2006 as amended and ISO standard ISO 11014-1:1994 (E) and is recommended by the Association of Manufacturers and Formulators of Enzyme Products (AMFEP).						
History						
Date first issue		: 08/07/2015				
Last review date		: See header.				
Version		: SDS-CLP/GHS-001/15				