


# DELTABREW® PURE

## Safety Data Sheet

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1.	IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING																																							
<p><b>Product identification</b></p> <p>Product name <b>DELTABREW® PURE</b></p> <p>Synonyms Standardised liquid enzyme preparation Acid protease</p> <p>Chemical formula Not applicable</p> <p><b>Relevant identified uses and restrictions on use</b></p> <p>Recommended use For brewing</p> <p><b>Details of the supplier of the safety data sheet</b></p> <p><b>Supplier (manufacturer)</b> WeissBioTech GmbH An der Hansalinie 48-50 59387 Ascheberg Germany Tel. +49-2593 919 386</p> <p><b>Emergency phone number</b> Tel. +49-2593 919 386 or your national allergen and poison center.</p>																																								
2.	HAZARD IDENTIFICATION																																							
<p><b>Classification:</b></p> <p>USA: <b>Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200 :</b></p> <p>Resp. Sens. 1 Respiratory sensitization</p> <p>Canada: <b>WHIMS 2015</b></p> <p>Resp. Sens. 1 Respiratory sensitization</p> <p><b>Label elements</b></p> <p>Hazard pictograms</p> <div style="text-align: center;">  </div> <p>Signal word <b>Danger</b></p> <p>Hazard statements H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 – May cause serious respiratory irritation.</p> <p>Precautionary statements Prevention P261 - Avoid breathing dust/fume/gas/mist/vapour/spray. P285 - In case of inadequate ventilation wear respiratory protection. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P264 - Wash hands thoroughly after handling.</p> <p>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 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P332 + P337 + P313 If skin irritation occurs/if eye irritation persists: Get medical advice/attention. P302 + P352 IF ON SKIN: wash with plenty of soap and water. P501 - Dispose of contents/container according to the local regulations.</p> <p>Disposal Hazardous ingredients <b>Other hazards</b> Acid protease enzyme protein The mixture is not known to contain other hazardous components or ingredients.</p>																																								
3.	COMPOSITION / INFORMATION ON INGREDIENTS																																							
<table border="1"> <thead> <tr> <th rowspan="2">Ingredient name</th> <th rowspan="2">CAS n°</th> <th rowspan="2">%</th> <th>Canada</th> <th colspan="2">Hazard Communication Standard; 29 CFR Part 1910.1200</th> </tr> <tr> <th>WHMIS 2015</th> <th>2012 OSHA</th> <th>1994 OSHA</th> </tr> </thead> <tbody> <tr> <td>Acid protease</td> <td>9025-49-4</td> <td>12-15</td> <td style="text-align: center;">+</td> <td style="text-align: center;">+</td> <td style="text-align: center;">+</td> </tr> <tr> <td>Glycerol</td> <td>56-81-5</td> <td>32-50</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: center;">+</td> </tr> <tr> <td>Glucose</td> <td>50-99-7</td> <td>6-7</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Potassium sorbate</td> <td>24634-61-5</td> <td>0.15</td> <td></td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td>Sodium benzoate</td> <td>532-32-1</td> <td>0.3</td> <td></td> <td style="text-align: center;">-</td> <td></td> </tr> </tbody> </table> <p>Occupational exposure limits, if available, are listed in Section 8.</p>		Ingredient name	CAS n°	%	Canada	Hazard Communication Standard; 29 CFR Part 1910.1200		WHMIS 2015	2012 OSHA	1994 OSHA	Acid protease	9025-49-4	12-15	+	+	+	Glycerol	56-81-5	32-50	-	-	+	Glucose	50-99-7	6-7				Potassium sorbate	24634-61-5	0.15		-		Sodium benzoate	532-32-1	0.3		-	
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4.	FIRST AID MEASURES																																							
<p><b>Description of first aid measures:</b></p> <p>General advice 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. If patient is likely to become unconscious, place and transport in stable sideways position (recovery position) and remove contaminated clothing.</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>																																								
<p>WeissBioTech GmbH • An der Hansalinie 48 - 50 • D-59387 Ascheberg - Germany Phone +49 (0) 2593 919 386 • Fax +49 (0) 2593 919 393 • info@weissbiotech.com • www.weissbiotech.com</p>																																								

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4.	FIRST AID MEASURES (continued)
<b>Continuation of page 1</b>	
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.
Skin contact	Wash with soap and water. . Remove contaminated shoes and clothing. Consult a doctor if symptoms develop.
Ingestion	Rinse mouth and throat thoroughly with water and drink 200-300 ml of water.
<b>Most important symptoms and effects, both acute and delayed</b>	
<u>Potential acute health effects</u>	
Eye contact	May cause irritation of the eyes (redness).
Inhalation	Inhalation of small amounts of product may cause irritation to the respiratory system and it may entail sensitisation; sensitised people may develop asthma if inhaled again.
Skin contact	Contact with the skin may cause irritation.
Ingestion	Ingestion of the product may entail gastrointestinal problems.
<u>Over-exposure signs/symptoms</u>	
Eye contact	Strong and hurtful irritation of the eyes, extreme redness.
Inhalation	Adverse symptoms of repeated inhalation of sensitised person may include the asthma and an allergic reaction if subsequently inhaling the mixture again.
Skin contact	Prolonged or repeated contact with the skin may cause strong and painful irritation.
Ingestion	Prolonged or repeated ingestion of the product may cause gastrointestinal pains.
<b>Indication of any immediate medical attention and special treatment needed</b>	
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
<b>Extinguishing media</b>	
Small fire	
Suitable	Dry powder, foam, dry chemicals or CO <sub>2</sub>
Not suitable	None known.
Large fire	
Suitable	Use extinguishing media suitable for the surrounding materials.
Not suitable	None known.
<b>Special hazards arising from the substances or mixture</b>	
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.
<b>Advice for fire fighters</b>	
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 and require no additions or special turn-out gear.
6.	ACCIDENTAL RELEASE MEASURES
<b>Personal precautions, protective equipment and emergency procedures.</b>	
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 to verify whether specialised clothing is needed.
<b>Environmental precautions</b>	
After spillage avoid creation of aerosols and dust from dried preparation.	
<b>Method and materials for containment and cleaning up</b>	
Small accidental spillage or leak	Mop up with appropriate material. Place in an appropriate waste 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. Dispose of in line with all applicable government regulations.
<b>Reference to other sections</b>	
See section 1 for emergency contact information.	
See section 8 for information on appropriate protective materials.	
See section 13 for additional waste treatment information.	

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7.	HANDLING AND STORAGE										
<p><b>Precautions for safe handling</b> Protective measures</p> <p>Advice on general occupational hygiene Conditions for safe storage, including any incompatibilities</p> <p><b>Packaging materials, suitable</b></p> <p><b>Specific end uses</b> Recommendations Industrial sector specific solutions</p>	<p>Handle according GMP in a food context. Avoid formation of aerosols and dust from dried 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. 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>Available per separate, product and application specific data sheets and supplier info. Not available</p>										
8.	EXPOSURE CONTROLS/PERSONAL PROTECTION										
<p><b>Components with occupational exposure limits</b> 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 have been assigned a workplace exposure limit.</p> <p><b>System design</b> Appropriate engineering controls</p> <p><b>Individual protective measures</b> Respiratory protection</p> <p>Skin and body Hand protection Eye protection</p> <p><b>General safety and hygiene measures</b></p>	<p>Provide for good ventilation of the room when handling the product. Avoid formation of aerosols and dust from dried preparation. If dust, gas, vapour or mist is generated, use containment measures and local exhaust ventilation.</p> <p>Wear respiratory protection if ventilation is inadequate. Wear approved type of mask for this type of aerosols and dust (mask P3).</p> <p>Wear appropriate protective clothing based on the type of activity, lab coat. Impermeable gloves, rubber or latex. Safety glasses with side-shields.</p> <p>Ensure adequate ventilation. Avoid inhalation. Avoid contact with the skin, eyes and clothing. Take appropriate measures and operate in accordance with good industry hygiene and safety practice.</p>										
9.	PHYSICAL AND CHEMICAL PROPERTIES										
<p><b>Information concerning the essential physical and chemical properties</b> Appearance and state Odour 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: data are as for similar proteins and details are not available.</p> <p><b>Other information</b></p>	<p>Brown transparent to slightly opaque liquid. Odour typical for fermentation products. The product is readily miscible with potable water.</p> <p>No applicable information available.</p>										
10.	STABILITY AND REACTIVITY										
<p><b>Reactivity</b> <b>Chemical stability</b> <b>Possibility of hazardous reactions</b> <b>Conditions to avoid</b> <b>Incompatible materials</b> <b>Hazardous decomposition products</b></p>	<p>Not relevant. The preparation is stable under normal conditions of storage. Under the normal conditions of storage and use, hazardous reaction will not occur. No specific data available. No specific data available. No specific data available.</p>										
11.	TOXICOLOGICAL INFORMATION										
<p><b>Primary routes of exposure</b> <b>Acute toxicity</b></p> <table border="1"> <thead> <tr> <th>Product/ingredient name</th> <th>Species</th> <th>Dose</th> <th>Result</th> <th>Exposure</th> </tr> </thead> <tbody> <tr> <td>DELTABREW® PURE</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Product/ingredient name	Species	Dose	Result	Exposure	DELTABREW® PURE	-	-	-	-	<p>Primary routes of entry for solids and liquids are ingestion and inhalation</p>
Product/ingredient name	Species	Dose	Result	Exposure							
DELTABREW® PURE	-	-	-	-							

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11.	TOXICOLOGICAL INFORMATION (continued)																	
<p><b>Continuation of page 3</b></p> <p><b>Potential acute health effects</b></p> <p>Eye contact Inhalation Skin contact Ingestion</p> <p>Acute toxicity Irritation/Corrosion Sensitisation</p> <p><b>Potential chronic health effects</b></p> <p>Chronic effects</p> <p>Carcinogenicity Mutagenicity Teratogenicity Reproductive toxicity Specific target organ toxicity</p> <p><b>Symptoms related to the physical, chemical and toxicological characteristics</b></p> <p>Eye contact Inhalation Skin contact Ingestion</p> <p>General</p> <p>Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects</p>		<p>No known significant effects or critical hazards. May cause allergy or asthma symptoms or breathing difficulties if inhaled. No known significant effects or critical hazards. No known significant effects or critical hazards.</p> <p>No information available. No known significant data. No specific data available.</p> <p>Once sensitised, a strong allergic reaction may occur when subsequently exposed to very low levels. Conclusion/Summary: not available. Conclusion/Summary: not available. Conclusion/Summary: not available. Conclusion/Summary: not available. Conclusion/Summary: not available.</p> <p>No specific data. Adverse symptoms may include: wheezing and breathing difficulties, asthma. No specific data. No specific data.</p> <p>Once sensitised, a severe allergic reaction may occur when subsequently exposed to very low levels. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.</p>																
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Product/ingredient name	Species	Exposure	Result															
DELTABREW® PURE	-	-	-															
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13.	DISPOSAL CONSIDERATIONS																	
<p><b>Waste treatment methods</b></p> <p><b>Hazardous waste</b></p> <p><b>Packaging material</b> <b>Special precautions</b></p>		<p>Dispose of surplus or non-recyclable residual product by flushing with water into an approved sewer or otherwise in line with local legal requirements. 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. P501 - Dispose of contents/container according to the local regulations. 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.</p>																

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14.	TRANSPORT INFORMATION					
<b>International transport regulations:</b>						
	UN number	UN proper shipping name	Transport hazard class	Packing group	Environmental hazards	Classified as dangerous / Additional information
ADR/RID	Not regulated	-	-	-	No	-
ADN	Not regulated	-	-	-	No	-
IMDG	Not regulated	-	-	-	No	Not classified as dangerous
IATA / ICAO	Not regulated	-	-	-	No	Not classified as dangerous
USDOT	-	-	-	-	-	Not classified as dangerous
<b>Special instructions for the user</b> 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.						
15.	REGULATORY INFORMATION					
<b>Relevant regulations/legislation applicable for the substance or mixture:</b>						
<u>USA: Federal Regulations</u>						
Registration status:		Chemical TSCA, US released / listed.				
EPCRA 311/312 (hazard categories)		Acute				
State regulations		-				
NFPA Hazard Codes:		Health: 1	Fire: 1	Reactivity: 0	Special:	
<u>Canada</u>						
WHMIS (2015)		GHS: Danger symbol required; see section 2).				
<u>EU Regulation 1907/2006 (REACH)</u>						
Annex XIV – List of substances subject to authorisation.		None of the components are listed.				
<u>EU Regulation 1272/2008 [CLP/GLS]</u>		Resp. Sens. 1, H334 RESPIRATORY SENSITIZATION – Category 1.				
16.	OTHER INFORMATION					
<b>Material for study and training</b>						
Enzyme products need handled with care by skilled personnel only. Please consult the 'AMFEP Guide to the Safe handling of Enzymes' ( <a href="http://www.amfep.org">www.amfep.org</a> ) for further information. As member of AMFEP, WeissBioTech has adopted a strict safety policy and recommends enzyme processing organisations to take note of the information presented by AMFEP, of which this SDS only is a formal summary.						
<b>Notice to the reader</b>						
The information contained in this 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 SDS does not represent analytical specifications, for which please refer to our Product Specification Sheet. The format of this SDS references the EC Regulation 1907/2006 as amended; the global implementation of GHS, ISO standard ISO 11014-1:1994 (E) and is recommended by the Association of Manufacturers and Formulators of Enzyme Products (AMFEP).						