

Page: 1 of 5

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1.4 Emerge Emerg 2.1 Classifi 2.2 Label E GHS I Basec GHS I No ph GHS I No ph	ency telephone num gency Contact: cation of the Subst lements: Signal Word: Hazard Phrases: d on evaluation of cu Precaution Phrases	nber: CHEMTREC Within USA CHEMTREC Outside US Section 2. Ha: tance or Mixture: None	and Canada: A and Canada: Zards Identif	+1 (8 +1 (7	00)424-9300					
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2.1 Classifi 2.2 Label E GHS S GHS I Based GHS I No ph GHS I No ph	cation of the Subst lements: Signal Word: Hazard Phrases: I on evaluation of cu Precaution Phrases	CHEMTREC Outside US Section 2. Ha: tance or Mixture: None	A and Canada: zards Identif	+1 (7	•					
2.2 Label E GHS S GHS I Basec GHS I No ph GHS I No ph	lements: Signal Word: Hazard Phrases: I on evaluation of cu Precaution Phrases	Section 2. Ha: tance or Mixture: None	zards Identif		03)527-3887					
2.2 Label E GHS S GHS I Basec GHS I No ph GHS I No ph	lements: Signal Word: Hazard Phrases: I on evaluation of cu Precaution Phrases	tance or Mixture: None rrently available data this sub-		ication						
2.2 Label E GHS S GHS I Basec GHS I No ph GHS I No ph	lements: Signal Word: Hazard Phrases: I on evaluation of cu Precaution Phrases	None	, .							
GHS S GHS I Based GHS I No ph GHS I No ph	Signal Word: Hazard Phrases: I on evaluation of cu Precaution Phrases	rrently available data this sub	, .							
GHS I Basec GHS I No ph GHS I No ph	Hazard Phrases: I on evaluation of cu Precaution Phrases	rrently available data this sub								
Based GHS I No ph GHS I No ph	d on evaluation of cu Precaution Phrases	-								
GHS I No ph GHS I No ph	Precaution Phrases	-								
No ph GHS I No ph			Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.							
<b>GHS I</b> No ph	rases apply.									
No ph										
	Response Phrases									
GHS	rases apply.									
	Storage and Dispos									
<ul> <li>Please refer to Section 7 for Storage and Section 13 for Disposal information.</li> <li>Adverse Human Health Material may be irritating to the mucous membranes and upper respiratory traces</li> </ul>										
	e Human Health	, ,		• • •	espiratory tract.					
Effects and Symptoms: May be harmful by inhalation, ingestion, or skin absorptio May cause eye, skin, or respiratory system irritation.										
					ot been thoroughly investigated					
	Sect	ion 3. Composition	/Information	on Ingredie	ents					
CAS # / RTECS #	Hazardous Comp REACH Registrat	onents (Chemical Name)/ ion No.	Concentration	EC No./ EC Index No.	GHS Classification					
34540-22-2		hopyranosyl-(1.4)-O-bD-glucop	100.0 %	252-076-1	No data available.					
YU9555000	yranosyl-(1.6)-bD-glucopyranosyl			NA						
	(2a,3b.,4a,6b.)-2,3,6,	23-tetrahydroxyu								



Revision: 11/02/2016

	Section 4. First Aid Measures						
4.1	Description of First Aid						
	Measures:						
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.					
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.					
	In Case of Eye Contact:						
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.					
		Section 5. Fire Fighting Measures					
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.					
	Media:	Use water spray to cool fire-exposed containers.					
	Unsuitable Extinguishing Media:	<b>g</b> A solid water stream may be inefficient.					
5.2	Flammable Properties andNo data available. Hazards:						
		No data available.					
	Flash Pt:	No data.					
	Explosive Limits:	LEL: No data. UEL: No data.					
	Autoignition Pt:	No data.					
5.3	Fire Fighting Instructions	<b>s:</b> As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.					
		Section 6. Accidental Release Measures					
6.1	Protective Precautions,	Avoid raising and breathing dust, and provide adequate ventilation.					
	Protective Equipment an	d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,					
	Emergency Procedures:	and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).					
6.2	Environmental	Take steps to avoid release into the environment, if safe to do so.					
	Precautions:						
6.3		Methods and Material For Contain spill and collect, as appropriate.					
	Up:	hgTransfer to a chemical waste container for disposal in accordance with local regulations.					
	•	Section 7. Handling and Storage					
7.1	Precautions To Be Taken       Avoid breathing dust/fume/gas/mist/vapours/spray.         in Handling:       Avoid prolonged or repeated exposure.						
7.2		Keep container tightly closed.					
1.2	in Storing:	Store in accordance with information listed on the product insert.					
	Sec	tion 8. Exposure Controls/Personal Protection					
8.1	Exposure Parameters:						

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8.2	Exposure Controls:						
8.2.1	Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne					
	(Ventilation etc.):	levels below recommended exposure limits.					
8.2.2	Personal protection equip	lipment:					
	Eye Protection: Safety glasses						
	Protective Gloves:	Compatible chemical-resistant gloves					
	Other Protective Clothing:	Lab coat					
	-	NIOSH approved respirator, as conditions warrant.					
(Specify Type):							
	Work/Hygienic/Maintenan	Do not take internally.					
		Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.					
		Wash thoroughly after handling.					
		No data available.					
	Section 9. Physical and Chemical Properties						
9.1	-	ical and Chemical Properties					
	Physical States:	[]Gas []Liquid [X]Solid					
	Appearance and Odor:	A solid					
	pH:	No data.					
	Melting Point:	No data.					
	Boiling Point:	No data.					
	Flash Pt:	No data.					
	Evaporation Rate:	No data.					
	Flammability (solid, gas):	No data available.					
	Explosive Limits:	LEL: No data. UEL: No data.					
	Vapor Pressure (vs. Air or	mm No data.					
	Hg):						
	Vapor Density (vs. Air = 1):						
	Specific Gravity (Water = 1	-					
	Solubility in Water:	No data.					
	Solubility Notes:	Soluble in: water;					
	Octanol/Water Partition	No data.					
	Coefficient:						
	Autoignition Pt:	No data.					
	Decomposition Temperatu						
	Viscosity:	No data.					
9.2	Other Information						
	Percent Volatile:	No data.					
	Molecular Formula & Weig	ht: C48H78O20 975.1					

activity:	Madecassos	ide				
activity:				Revis	ion: 11/02/2016	
activity:	Section 10. Stability and	Reactivi	ty			
	No data available.		-			
bility:	Unstable [ ] Stable [ X ]					
bility Note(s):	Stable if stored in accordance with information listed on the product insert.					
lymerization:	Will occur [ ] Will not occur [ X ]					
Conditions To Avoid: No data available.						
10.5 Incompatibility - Materials strong oxidizing agents						
Avoid:						
zardous	carbon dioxide					
composition or	carbon monoxide					
products:						
	Section 11. Toxicological	Informat	ion			
ormation on	-		• •			
kicological Effects:	Madecassoside - Toxicity Data: Oral TDLC	) (mouse): 66	mg/kg/22D	(intermittent);		
ronic Toxicological	_	-	(			
ects:			ances (RIEC	CS) data is pre	sented here.	
	•					
Hazardous Con		1			OSHA	
	· · · · ·			_		
		n.a.	n.a.	n.a.	n.a.	
	Section 12. Ecological Ir	formatio	n			
xicity:	Avoid release into the environment.					
12.1 Toxicity:         Avoid release into the environment.           Runoff from fire control or dilution water may cause pollution.						
rsistence and	No data available.					
gradability:						
oaccumulative	No data available.					
tential:						
bility in Soil:	No data available.					
sults of PBT and vPvB	3 No data available.					
sessment:						
ner adverse effects:	No data available.					
	Section 13. Disposal Con	sideratio	ns			
ste Disposal Method:	Dispose in accordance with local, state, an	d federal reg	ulations.			
rovzop – okre – 2 – k rgokukssn –	Avoid: ardous composition or products:	Inditions To Avoid:       No data available.         Impatibility - Materials strong oxidizing agents         Avoid:       carbon dioxide         ardous       carbon monoxide         composition or       carbon monoxide         irroducts:       Section 11. Toxicological         Irrmation on       The toxicological effects of this product have         icological Effects:       Madecassoside - Toxicity Data: Oral TDLC         onic Toxicological       Madecassoside - Investigated as a natural         orts:       Only select Registry of Toxic Effects of Ch         See actual entry in RTECS for complete in Madecassoside RTECS Number: YU95550         Hazardous Components (Chemical Name)         -2       O-6-Deoxy-a-L-mannopyranosyl-(1.4)-O-bD-glucopyranos yl-(1.6)-bD-glucopyranosyl (2a,3b.,4a,6b.)-2,3,6,23-tetrahydroxyu         Section 12. Ecological Ir         icity:       Avoid release into the environment. Runoff from fire control or dilution water maisistence and wo data available.         irradability: accumulative       No data available.         iolity in Soil:       No data available.         iolity of PBT and vPvB       No data available.         essment:       er adverse effects:       No data available.         Section 13. Disposal Con	Inditions To Avoid:       No data available.         Image: compatibility - Materials strong oxidizing agents         Avoid:       carbon dioxide         ardous       carbon monoxide         image: composition or       carbon monoxide         Section 11. Toxicological Informat         Image: composition or       carbon monoxide         irroducts:         Section 11. Toxicological Informat         Image: composition or       carbon monoxide         irroducts:         Section 11. Toxicological Informat         Image: composition or       carbon monoxide         Image: composition or         irroducts:         Section 11. Toxicological Information         Madecassoside - Toxicity Data: Oral TDLO (mouse): 66       Only select Registry of Toxic Effects of Chemical Substa See actual entry in RTECS for complete information.         Madecassoside RTECS Number: YU9555000       Madecassoside RTECS Number: YU9555000         Action 12. Ecological Information         yl-(1.6)-bD-glucopyranosyl       n.a.         yl-(1.6)-bD-glucopyranosyl       n.a.         Viodat available.         Runoff from fire control or dilution water may cause pollisistence and       No data available.	Iditions To Avoid:       No data available.         compatibility - Materials strong oxidizing agents         Avoid:         ardous       carbon dioxide         composition or       carbon monoxide         irroducts:       Section 11. Toxicological Information         Irreation on       The toxicological effects of this product have not been thoroughly stuicological Effects:         Madecassoside - Toxicity Data: Oral TDLO (mouse): 66 mg/kg/22D         onic Toxicological       Madecassoside - Investigated as a natural product.         only select Registry of Toxic Effects of Chemical Substances (RTEC See actual entry in RTECS for complete information. Madecassoside RTECS Number: YU9555000         Hazardous Components (Chemical Name)       NTP         yl-(1.6)-b-D-glucopyranosyl (2a,3b.,4a,6b.)-2,3,6,23-tetrahydroxyu       n.a.         city:       Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.         sistence and       No data available.         irradability:       accumulative         accumulative       No data available.         with of PBT and vPvB       No data available.         with of PBT and vPvB       No data available.	Inditions To Avoid:       No data available.         Separatibility - Materials strong oxidizing agents         Avoid:       carbon dioxide         ardous       carbon monoxide         readouts:       Section 11. Toxicological Information         Immation on       The toxicological effects of this product have not been thoroughly studied.         icological Effects:       Madecassoside - Toxicity Data: Oral TDLO (mouse): 66 mg/kg/22D (intermittent);         Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is prese actual entry in RTECS for complete information.       Madecassoside RTECS Number: YU9555000         Hazardous Components (Chemical Name)       NTP       IARC       ACGIH         -2       O-6-Deoxy-a-L-mannopyranosyl-(1.4)-O-bD-glucopyranosyl       n.a.       n.a.       n.a.         yl-(1.6)-bD-glucopyranosyl       (2a,3b,4a,6b,)-2,3,6,23-tetrahydroxyu       n.a.       n.a.       n.a.         Iteity:       Avoid release into the environment.       Runoff from fire control or dilution water may cause pollution.       sistence and       No data available.         irradability:       accumulative       No data available.       uits of PBT and vPVB       No data available.         essment:       er diverse effects:       No data available.       section 13. Disposal Considerations	



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		• · · · ·					
	Section 14. Transport Information						
14.1 LAND TRANSPORT (US DOT):							
DOT Proper 3 DOT Hazard UN/NA Numb		Not dangerous goods.					
14.1 LAND TR	ANSPORT (Euro	ppean ADR/RID):					
ADR/RID Shipping Name: Not dangerous goods.							
UN Number:							
Hazard Class	5:						
14.3 AIR TRAM	NSPORT (ICAO/I	ATA):					
ICAO/IATA S	hipping Name:	Not dangerous goods.					
Additional Trans	port	Transport in accordance with loc	cal, state, and fede	ral regulations.			
Information:							
		Section 15. Regula	atory Inform	ation			
EPA SARA (Sup	erfund Amendm	ents and Reauthorization Act o	f 1986) Lists				
CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)		
0	opyranosyl-(1.6)-ł	annopyranosyl-(1.4)-O-bD-gluc bD-glucopyranosyl 3,6,23-tetrahydroxyu	No	No	No		
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA or State Lists				
0	opyranosyl-(1.6)-t	annopyranosyl-(1.4)-O-bD-gluc bD-glucopyranosyl 3,6,23-tetrahydroxyu	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No				
Regulatory Inform	mation	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)					
Statement:		No.1272/2008.					
		Section 16. Oth	er Informatio	on			
Revision Date:		11/02/2016					
Additional Inform	nation About	No data available.					
This Product:							
Company Policy	or Disclaimer:	DISCLAIMER: This information is currently available to us. Howeve express or implied, with respect to use. Users should make their ow their particular purposes.	er, we make no wa to such informatior	rranty of merchanta n, and we assume r	ability or any other warranty, no liability resulting from its		