

Revision: 10/15/2014

	Contian 1 Id	ontification of the Substance/Mixture and of the	EC) No. 1272/2008			
	Section 1. Id	entification of the Substance/Mixture and of the	e Company/Undertaking			
1.1	Product Code:	15375				
	Product Name:	Arctiin				
	Synonyms:	(3R,4R)-4-[(3,4-dimethoxyphenyl)methyl]-3-[[4- l]dihydro-2(3H)-furanone; Arctigenin-4-Glucosid				
1.2	Relevant identified uses of	the substance or mixture and uses advised aga				
	Relevant identified uses:	For research use only, not for human or veterin	ary use.			
1.3	Details of the Supplier of th	e Safety Data Sheet:				
	Company Name:	Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108				
	Web site address:	www.caymanchem.com				
	Information:	Cayman Chemical Company	+1 (734)971-3335			
1.4	Emergency telephone num	per:				
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300			
		CHEMTREC Outside USA and Canada: Section 2. Hazards Identifica	+1 (703)527-3887			
2.1	Classification of the Substa					
2.1.2	Risk Phrases:					
2.2	Risk Phrases: For full text of R- phrases Label Elements:					
2.2	Risk Phrases: For full text of R- phrases Label Elements: Labeling according to Regi	: see SECTION 15.				
2.2	Risk Phrases: For full text of R- phrases Label Elements:	: see SECTION 15.				
2.2	Risk Phrases: For full text of R- phrases Label Elements: Labeling according to Regu GHS Signal Word: GHS Hazard Phrases:	: see SECTION 15.	classifiable according to GHS.			
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2.2	Risk Phrases: For full text of R- phrases Label Elements: Labeling according to Regu GHS Signal Word: GHS Hazard Phrases: Based on evaluation of curre GHS Precaution Phrases: No phrases apply. GHS Response Phrases: No phrases apply. GHS Storage and Disposal	: see SECTION 15. ulation (EC) No 1272/2008 [CLP]: ntly available data this substance or mixture is not	classifiable according to GHS.			
2.2 2.2.1	Risk Phrases: For full text of R- phrases Label Elements: Labeling according to Regu GHS Signal Word: GHS Hazard Phrases: Based on evaluation of curre GHS Precaution Phrases: No phrases apply. GHS Response Phrases: No phrases apply. GHS Storage and Disposal Please refer to Section 7 for	: see SECTION 15. ulation (EC) No 1272/2008 [CLP]: ntly available data this substance or mixture is not a Phrases: Storage and Section 13 for Disposal information.	classifiable according to GHS.			
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Effects and Symptoms:       May be harmful by inhalation, ingestion, or skin absorption. May cause eye, skin, or respiratory system irritation. To the best of our knowledge, the taxicological properties have not been thoroughly investigated.         Section 3. Composition/Information on Ingredients         CAS # / REACH Registration No.         20382-31-6         20382-31-6         Virazional         100.0 %       NA         No phrases apply.         Virazional         20382-31-6         Virazional         Reference         Section 4. First Aid Measures         Reference         Section 5. Fire Station (Set medical attention)         No case of Inhalation:         Reference         In Case of Skin Contact:         Immediatel medical attention if symptomos occur. Wash clothing before reuse.	2.3	Adverse Human Health		Material may be irritating to the mucous membranes and upper respiratory tract.					
May cause eye, skin, or respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.         Section 3. Composition/Information on Ingredients         CAS # // ReaCrit Registration No.         Concentration       Risk Phrases/ EC No/ EC No/ EC No/ EC No/ EC No/ EC No/ EC No/ No ARA No phrases apply.         Section 4. First Aid Measures         Section 4. First Aid Measures         Concentration or give oxygen by trained personnel. Get Immediate medical attention.         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: Immediates medical attention if symptoms occur. Wash obtim before reuse.         In Case of Inhalation: Wash out nouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention 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         Media:         Use altechol-resistant foam, carbon dioxide, water, or dry chemical spray. Use alterohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use alterohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use alterohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use alterohol-resista									
Section 3. Composition/Information on Ingredients           CAS #/ RTECS #         Hazardous Components (Chemical Namey/ EACH Registration No.         Concentration EC Index No.         Risk Phrases/ BC Index No.           20382-31-6 20382-31-6 20382-31-6 3         Arctlin         100.0 %         NA         No phrases apply. No data available.           100.0 %         NA         No phrases apply. No data available.         No data available.           Measures: In Case of Inhalation: Cast immediate medical attention.         Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Cast immediate medical attention.           In Case of Skin Contact: In Case of Skin Contact: In Case of Eye Contact: Hold eyelids apart and flush eyes with plonty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.           Variable Extinguishing Media: Unsuitable Extinguishing Use water spray to cool fire-exposed containers. Unsuitable Extinguishing A solid water stream may be inefficient. Media: Filesh ht: No data. Section 6. Accidental Release Measures           21.7 Fire Fighting Instructions: 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           22.7 Fire Fighting Instructions: 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.           23.7									
CAS # / RTECS #         Hazardous Components (Chemical Name)/ REACH Registration No.         Concentration         EC NJ EC Index No.         Risk Phrases/ GHS Classification           20362-31-6 /V12243000         Anctiin         100.0 %         NA         No phrases apply. No data available.           20362-31-6 /V12243000         Anctiin         100.0 %         NA         No phrases/ NA         No phrases/ No data available.           Concentration         First Aid Measures:         Incline         No data available.           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 if symptoms occur. Wash clothing before reuse.         In Case of Skin Contact:           In Case of Skin Contact:         Hold eydids apart and flush eyas with plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention. To NOT induce vomiting unless directed to do so by medical personnel.           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         Use water spray to cool fire-exposed containers. Unsuitable Extinguishing Media:           13.         Suitable Extinguishing A solid water stream may be inefficient. Media:           14.         No data.									
CAS # / RTECS #         Hazardous Components (Chemical Namey/ REACH Registration No.         Concentration         EC NJ EC Index No.         Risk Phrases/ GHS Classification           20362-31-6 /V12243000         Anttlin         100.0 %         NA         No phrases apply. No atta available.           20362-31-6 /V12243000         Anttlin         100.0 %         NA         No phrases apply. No data available.           Incline         Section 4. First Aid Measures         No data available.           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 if symptoms occur. Wash clothing before reuse.           In Case of Skin Contact:         Immediately apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tosteid by medical personnel.           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         Use water spray to cool fire-exposed containers. Unsuitable Extinguishing Media:           12. Suitable Extinguishing Media:         Section 6. Accident available.           13. Suitable Extinguishing Media:         No data.           13. Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus, pressure-demand (NIOSH approved or equi			Sect	ion 3. Composition	/Information @	on Ingredie	nts		
RTECS #         REACH Registration No.         EC Index No.         GHS Classification           20382-31-6         Arctin         100.0 %         NA         No phrases apply. No data available.           20382-31-6         Version         Section 4. First Aid Measures:         No data available.           In Case of Inhalation:         Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate wedical attention.         In Case of Skin Contact: In Case of Skin Contact: In Case of Eye Contact:         Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.           In Case of Eye Contact:         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 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.           Statiable Extinguishing Media:         Use atcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. Unsuitable Extinguishing A solid water stream may be inefficient. Media:           12         Flammable Properties andNo data available. Hazards: Flash Pt: No data.         Use water spray to cool fire-exposed containers.           13         Soritable Extinguishing A solid water stream may be inefficient. M	C 4 6	# /	1		1	-	1		
Life243000       NA       No data available.         Section 4. 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 scop and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.         In Case of Eye Contact:       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 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         Statistical Extinguishing         Use water spray to cool fire-exposed containers.         Unsuitable Extinguishing A solid water stream may be inefficient.         Media:       Use water spray to cool fire-exposed containers.         Use water spray to cool fire-exposed containers.         Unsuitable Extinguishing A solid water stream may be inefficient.         Media:       IEL: No data.         Explosive Limits:       LEL: No data.         Statade:       Flash Pt:         Isas not unicipation Pt:       No datasi					Concentration				
Section 4. First Aid Measures         I.1       Description of First Aid Measures:       No data available.         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.         In Case of Eye Contact:       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 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       Section 5. Fire Fighting Measures         S1       Suitable Extinguishing Media:       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Media:         S2       Fiammable Properties andNo data available. Hazards: Fiash Pt:       No data.         S3       Fire Fighting Instructions: 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.         S3       Protective Precautions, Avoid raising and breathing dust, and provide adequate ventilation. Protective Equipment and As conditons warrant, wear a NIOSH approved self-contained breathing appar			Arctiin		100.0 %				
1.1       Description of First Aid Measures: In Case of Inhalation:       No data available. Measures: In Case of Inhalation:         In Case of Skin Contact:       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:       Immediate medical attention if symptoms occur. Wash clothing before reuse.         In Case of Eye Contact:       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 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.         Suitable Extinguishing Media:       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. Unsuitable Extinguishing A solid water stream may be inefficient. Media:         12.       Flammable Properties andNo data available. Hazards: Flash Pt:       No data. Explosive Limits:         13.3       Fire Fighting Instructions: 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.         3.4       Protective Precautions, Avoid raising and breathing dust, and provide adequate ventilation. Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, Emergency Procedures:         3.1       Protecti	L1924	13000					No data available.		
1.1       Description of First Aid Measures: In Case of Inhalation:       No data available. Measures: In Case of Inhalation:         In Case of Skin Contact:       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:       Immediate medical attention if symptoms occur. Wash clothing before reuse.         In Case of Eye Contact:       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 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.         Suitable Extinguishing Media:       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. Unsuitable Extinguishing A solid water stream may be inefficient. Media:         12.       Flammable Properties andNo data available. Hazards: Flash Pt:       No data. Explosive Limits:         13.3       Fire Fighting Instructions: 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.         3.4       Protective Precautions, Avoid raising and breathing dust, and provide adequate ventilation. Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, Emergency Procedures:         3.1       Protecti									
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.         In Case of Skin Contact:       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 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.         Suitable Extinguishing       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.         Unsuitable Extinguishing       A solid water stream may be inefficient. Media:         12       Flammable Properties andNo data available. Hazards: Flash Pt:       No data. Explosive Limits:         13       Fire Fighting Instructions; 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.         14       Protective Precautions, Protective Equipment and 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).         14 <td< td=""><td></td><td></td><td></td><td>Section 4. Fi</td><td>rst Aid Measu</td><td>ires</td><td></td></td<>				Section 4. Fi	rst Aid Measu	ires			
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.         In Case of Eye Contact:       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 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.         Suitable Extinguishing       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. Unsuitable Extinguishing A solid water stream may be inefficient. Media:         5.2       Flammable Properties andNo data available. Hazards: Flash Pt:       No data. LEL: No data. Explosive Limits:         5.3       Suitable Exting instructions: 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.         5.4       Protective Precautions, Avoid raising and breathing dust, and provide adequate ventilation. Protective Equipment and 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). Take steps to avoid release into the en	4.1	Descrip	otion of First Aid	No data available.					
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.         In Case of Eye Contact:       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 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.         Suitable Extinguishing       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.         Media:       Use water stream may be inefficient.         Media:       Use water stream may be inefficient.         Media:       No data.         Explosive Limits:       LEL: No data.         Explosive Limits:       LEL: No data.         Satting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contained breathing apparatus, or respirator, Emergency Procedures:         Avid raising and breathing dust, and provide adequate ventilation.       Protective Frecautions, As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contained breathing apparatus, or respirator, Emergency Procedures:         Avid raising and breathing dust, and provide ad		Measur	es:						
<ul> <li>clothing. Get medical attention if symptoms occur. Wash clothing before reuse.</li> <li>In Case of Eye Contact:</li> <li>Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.</li> <li>In Case of Ingestion:</li> <li>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.</li> <li>Section 5. Fire Fighting Measures</li> <li>Suitable Extinguishing</li> <li>Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.</li> <li>Media:</li> <li>Use water spray to cool fire-exposed containers.</li> <li>Unsuitable Extinguishing</li> <li>A solid water stream may be inefficient.</li> <li>Media:</li> <li>Flammable Properties andNo data available.</li> <li>Hazards:</li> <li>Flash Pt:</li> <li>No data.</li> <li>Explosive Limits:</li> <li>LEL: No data.</li> <li>UEL: No data.</li> <li>Autoignition Pt:</li> <li>No data.</li> <li>Section 6. Accidental Release Measures</li> <li>Section 6. Accidental Release Measures</li> <li>Avoid raising and breathing dust, and provide adequate ventilation.</li> <li>Protective Precautions, As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, Emergency Procedures:</li> <li>and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).</li> <li>Take steps to avoid release into the environment, if safe to do so.</li> <li>Precautions:</li> <li>Methods and Material For Contain spill and collect, as appropriate.</li> <li>Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.</li> </ul>		In Case	of Inhalation:			l respiration or giv	e oxygen by trained personnel.		
In Case of Eye Contact:       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 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.         Suitable Extinguishing       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.         Media:       Use water spray to cool fire-exposed containers.         Unsuitable Extinguishing A solid water stream may be inefficient.       Media:         Media:       No data.         Explosive Limits:       LEL: No data.         Hazards:       Flammable Properties andNo data available.         Hazards:       Fire Fighting Instructions: 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.         Scettor 6. Accidental Release Measures         S.1       Protective Precautions, As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).         S.2       Environmenta       As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).         S.2       Environmental       As c		In Case	of Skin Contact:	Immediately wash skin with s	oap and plenty of wa	ater for at least 15	minutes. Remove contaminated		
and tested by medical personnel.         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         S.1       Suitable Extinguishing Media:         Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.         Media:       Use water spray to cool fire-exposed containers.         Unsuitable Extinguishing A solid water stream may be inefficient.         Media:       No data available.         Hazards:       Flash Pt:         Flash Pt:       No data.         Explosive Limits:       LEL: No data.         LEL: No data.       VEL: No data.         S.3       Fire Fighting Instructions: 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         S.1       Protective Precautions, Avoid raising and breathing dust, and provide adequate ventilation.         Protective Precautions:       Avoid raising and breathing dust, and provide adequate ventilation.         Protective Precautions:       Take steps to avoid release into the environment, if safe to do so.         Precautions:       Take steps to avoid release into the environment, if safe to do				clothing. Get medical attentio	n if symptoms occur	. Wash clothing b	efore reuse.		
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         Suitable Extinguishing         Media:       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.         Media:       Use water spray to cool fire-exposed containers.         Unsuitable Extinguishing       A solid water stream may be inefficient.         Media:       Value water stream may be inefficient.         Media:       No data available.         Hazards:       Flash Pt:         Flash Pt:       No data.         Explosive Limits:       LEL: No data.         Autoignition Pt:       No data.         Si       Fire Fighting Instructions: 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         Si       Protective Precautions, Avoid raising and breathing dust, and provide adequate ventilation.         Protective Precautions:       Avoid raising and breathing dust, and proved self-contained breathing apparatus, or respirator, Emergency Procedures:         and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).       Tak		In Case	of Eye Contact:	Hold eyelids apart and flush e	eyes with plenty of w	ater for at least 1	5 minutes. Have eyes examined		
unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  Section 5. Fire Fighting Measures Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. Unsuitable Extinguishing A solid water stream may be inefficient. Media: Section 5. A solid water stream may be inefficient. Media: Section 5. Fire Fighting Measures Section 6. Accidental Release Measures Section 6. Accidental Release Measures Avoid raising and breathing dust, and provide adequate ventilation. Protective Precautions, As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety gogles, and heavy rubber gloves). Sections: Sections: Sections: Contain spill and collect, as appropriate. Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.				and tested by medical person	inel.				
medical personnel.         Section 5. Fire Fighting Measures         Suitable Extinguishing       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.         Media:       Use water spray to cool fire-exposed containers.         Unsuitable Extinguishing       A solid water stream may be inefficient.         Media:       A solid water stream may be inefficient.         Media:       No data available.         Hazards:       Flammable Properties andNo data available.         Hazards:       Flash Pt:       No data.         Explosive Limits:       LEL: No data.       UEL: No data.         S.3       Fire Fighting Instructions: 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         S.1       Protective Precautions, Protective Equipment and 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).         S.2       Environmental       Take steps to avoid release into the environment, if safe to do so.         Precautions:       Same to a chemical waste container for disposal in accordance with local regulations.		In Case	of Ingestion:		-	-			
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Media:       Use water spray to cool fire-exposed containers.         Unsuitable Extinguishing       A solid water stream may be inefficient.         Media:		Section 5. Fire Fighting Measures							
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Media:         5.2       Flammable Properties andNo data available. Hazards: Flash Pt:       No data.         Flash Pt:       No data.         Explosive Limits:       LEL: No data.         Autoignition Pt:       No data.         5.3       Fire Fighting Instructions: 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.         5.3       Foreective Precautions, Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).         5.2       Environmental Precautions:         5.3       Methods and Material For Contain spill and collect, as appropriate. Containment and CleaningTransfer to a chemical waste container for disposal in accordance with local regulations.									
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7 4	Dress	tions To Do Takar A		7. Handling a			
7.1	in Hand	tions To Be Taken A	-	st/fume/gas/mist/vap repeated exposure.	oours/spray.		
7.2		tions To Be Taken K					
.2	in Stori			-	ted on the product insert.		
		-					
			n 8. Expos	ure Controls/	Personal Protection		
8.1	-	re Parameters:				1-	
CAS #		Partial Chemical Na	ime	Britain EH40	France VL	Europe	
2036	62-31-6	Arctiin		No data.	No data.	No data.	
CAS	#	Partial Chemical Na	me	OSHA TWA	ACGIH TWA	Other Limits	
203	62-31-6	Arctiin		No data.	No data.	No data.	
8.2	Exposu	re Controls:					
8.2.1	Engine	ering Controls U	se process enclos	ures, local exhaust	ventilation, or other engineering	g controls to control airbor	
	(Ventila	tion etc.): le	vels below recomr	mended exposure li	mits.		
8.2.2	Person	al protection equipm	ent:				
	Eye Pro	otection: Sa	afety glasses				
	Protect	ive Gloves: C	ompatible chemica	al-resistant gloves			
	Other P	Protective Clothing:La	ab coat				
	Respira	atory Equipment N	IOSH approved re	spirator, as conditic	ns warrant.		
	(Specify Type):						
	Work/Hygienic/Maintenan Do not take internally.						
	Work/H	ygienic/Maintenan D	o not take internal	ly.			
	Work/H ce Prac			-	I should be equipped with an e	yewash and a safety shov	
		tices: Fa		utilizing this materia	l should be equipped with an e	yewash and a safety shov	
		tices: Fa	acilities storing or	utilizing this materia	I should be equipped with an e	yewash and a safety shov	
		rtices: Fa	acilities storing or ash thoroughly aft o data available.	utilizing this materia ter handling.	I should be equipped with an e	yewash and a safety shov	
9.1	ce Prac	rtices: Fa	acilities storing or /ash thoroughly af o data available. ction 9. Phy	utilizing this materia ter handling. vsical and Ch		yewash and a safety shov	
9.1	ce Prac	rtices: Fa W N Sec	acilities storing or lash thoroughly aff o data available. ction 9. Phy al and Chemical I	utilizing this materia ter handling. vsical and Ch	emical Properties	yewash and a safety shov	
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Po 10.4 Co 10.5 Inc To 10.6 Ha De By 11.1 Inf To Ch	olymerization: onditions To Avoid: compatibility - Materials o Avoid: azardous ecomposition Or yproducts: formation on oxicological Effects:	Will occur [ ]       Will not occur [ X ]         No data available.       No data available.         No data available.       Section 11. Toxicological Information         The toxicological effects of this product have not been thoroughly studied.					
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To Ch	oxicological Effects:						
Ch	0	Arctiin - Toxicity Data: Oral TDLO (rat): 25.20 mg/kg/8W (continuous); Oral TDLO (mouse): 3.64					
		mg/kg/1W (intermittent); Oral TDLO (rat): 35 mg/kg/1W (continuous); Oral TDLO (rat): 630					
		mg/kg/3W (intermittent);					
Eff	hronic Toxicological	Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.					
	fects:	See actual entry in RTECS for complete information.					
		Arctiin RTECS Number: KQ630000					
Carcinog	enicity:	NTP? No IARC Monographs? No OSHA Regulated? No					
		Section 12. Ecological Information					
12.1 To	oxicity:	Avoid release into the environment.					
		Runoff from fire control or dilution water may cause pollution.					
12.2 Pe	ersistence and	No data available.					
De	egradability:						
12.3 Bio	oaccumulative	No data available.					
Po	otential:						
12.4 Mo	obility in Soil:	No data available.					
12.5 Re	esults of PBT and vPvB	No data available.					
as	ssessment:						
		Section 13. Disposal Considerations					
13.1 Wa	aste Disposal Method:	Dispose in accordance with local, state, and federal regulations.					



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CHIMICAL		Costion 44 Trees		otion		
		Section 14. Trar	isport inform	ation		
	TRANSPORT (US	-				
DOT Prop DOT Haza UN/NA Nu		Not dangerous goods.				
14.1 LAND	TRANSPORT (Eur	opean ADR/RID):				
	Shipping Name: er:	Not dangerous goods.				
14.3 AIR TR	ANSPORT (ICAO/	IATA):				
ICAO/IATA	A Shipping Name:	Not dangerous goods.				
Additional Tra	insport	Transport in accordance with le	ocal, state, and fede	ral regulations.		
		Section 15. Regu	latory Inform	ation		
EPA SARA (S	uperfund Amendm	nents and Reauthorization Act	of 1986) Lists			
CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
20362-31-6	Arctiin		No	No	No	
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA o	r State Lists		
20362-31-6			CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
S37/39 Regulatory Inf	١	Avoid contact with skin and eyes Near suitable gloves and eye/fac This SDS was prepared in acco 67/548/EEC as amended.	ce protection.	tion (EC) No.1272/2	2008 and European Directiv	
Statement:			<b>.</b>			
		Section 16. Ot	ner informati	on		
Revision Date: Additional Information About		10/15/2014 No data available.				
Additional Info	mation About	INU UALA AVAIIADIE.				
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