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		o Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/83	a Company/Undertaking						
	Section 1. Id	entification of the Substance/Mixture and of the	ne Company/Undertaking						
.1	Product Code:	28400							
	Product Name:	TD139							
	Synonyms:	3-deoxy-3-[4-(3-fluorophenyl)-1H-1,2,3-triazol-	1-yl]betaD-galactopyranosyl						
		3-deoxy-3-[4-(3-fluorophenyl)-1H-1,2,3-triazol-	1-yl]-1-thio-ß-D-galactopyranoside;						
2	Relevant identified uses of the substance or mixture and uses advised against:								
.3	Relevant identified uses: For research use only, not for human or veterinary use.								
	Details of the Supplier of the	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						
ŀ	Emergency telephone numb	per:							
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300						
	- 3 - -) - -	CHEMTREC Outside USA and Canada:	+1 (703)527-3887						
		Section 2. Hazards Identific	ation						
	Classification of the Substa	nce or Mixture:							
	Acute Toxicity: Oral, Cate	gory 4							
	Skin Corrosion/Irritation, Category 2								
		Category 2							
	Serious Eye Damage/Eye								
	Serious Eye Damage/Eye								
2	Serious Eye Damage/Eye	Irritation, Category 2							
.2	Serious Eye Damage/Eye Specific Target Organ Tox	Irritation, Category 2							
2	Serious Eye Damage/Eye Specific Target Organ Tox	Irritation, Category 2							
2	Serious Eye Damage/Eye Specific Target Organ Tox	Irritation, Category 2							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements:	Irritation, Category 2 xicity (single exposure), Category 3							
2	Serious Eye Damage/Eye Specific Target Organ Tox	Irritation, Category 2							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word:	Irritation, Category 2 xicity (single exposure), Category 3 Warning							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases:	Irritation, Category 2 kicity (single exposure), Category 3 Warning							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation	Irritation, Category 2 kicity (single exposure), Category 3 Warning							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i	Irritation, Category 2 kicity (single exposure), Category 3 Warning rritation.							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator	Irritation, Category 2 kicity (single exposure), Category 3 Warning rritation. y irritation.							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase	Irritation, Category 2 kicity (single exposure), Category 3 Warning Warning rritation. y irritation. es:							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust	Irritation, Category 2 kicity (single exposure), Category 3 Warning Warning rritation. y irritation. y irritation. es: //fume/gas/mist/vapors/spray}.							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou	Irritation, Category 2 kicity (single exposure), Category 3 Warning Warning	00)						
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou P280: Wear {protective glov	Irritation, Category 2 kicity (single exposure), Category 3 Warning Warning rritation. y irritation. y irritation. es: //fume/gas/mist/vapors/spray}.	on}.						
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou P280: Wear {protective glow GHS Response Phrases:	Irritation, Category 2 Acicity (single exposure), Category 3 Warning Warning rritation. y irritation. y irritation. es: /fume/gas/mist/vapors/spray}. ghly after handling. res/protective clothing/eye protection/face protection							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou P280: Wear {protective glov GHS Response Phrases: P301+312: IF SWALLOWEI	Irritation, Category 2 Acicity (single exposure), Category 3 Warning Warning Warning rritation. y irritation. y irritation. es: /fume/gas/mist/vapors/spray}. ghly after handling. res/protective clothing/eye protection/face protection D: P312: Call a POISON CENTER or doctor/phys							
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou P280: Wear {protective glow GHS Response Phrases: P301+312: IF SWALLOWER P302+352: IF ON SKIN: Wa	Irritation, Category 2 Acicity (single exposure), Category 3 Warning Warning Warning Warning rritation. y irritation. y irritation. es: /fume/gas/mist/vapors/spray}. ghly after handling. res/protective clothing/eye protection/face protection D: P312: Call a POISON CENTER or doctor/physical ash with plenty of soap and water.	ician if you feel unwell.						
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou P280: Wear {protective glow GHS Response Phrases: P301+312: IF SWALLOWEI P302+352: IF ON SKIN: Wa P304+340: IF INHALED: Res	Irritation, Category 2 kicity (single exposure), Category 3 Warning Warning with plenty of soap and water. Warning	ician if you feel unwell. ition comfortable for breathing.						
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou P280: Wear {protective glov GHS Response Phrases: P301+312: IF SWALLOWEI P302+352: IF ON SKIN: Wa P304+340: IF INHALED: Response P305+351+338: IF IN EYES	Irritation, Category 2 Acicity (single exposure), Category 3 Warning Warning Warning Warning rritation. y irritation. y irritation. es: /fume/gas/mist/vapors/spray}. ghly after handling. res/protective clothing/eye protection/face protection D: P312: Call a POISON CENTER or doctor/physical ash with plenty of soap and water.	ician if you feel unwell. ition comfortable for breathing.						
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2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou P280: Wear {protective glov GHS Response Phrases: P301+312: IF SWALLOWED P302+352: IF ON SKIN: Wa P304+340: IF INHALED: Re P305+351+338: IF IN EYES to do. Continue rinsing. P330: Rinse mouth.	Irritation, Category 2 Acicity (single exposure), Category 3 Warning Warning	ician if you feel unwell. ition comfortable for breathing.						
2	Serious Eye Damage/Eye Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation H319: Causes serious eye i H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thorou P280: Wear {protective glov GHS Response Phrases: P301+312: IF SWALLOWED P302+352: IF ON SKIN: Wa P304+340: IF INHALED: Re P305+351+338: IF IN EYES to do. Continue rinsing. P330: Rinse mouth. P332+313: If skin irritation of	Irritation, Category 2 kicity (single exposure), Category 3 Warning Warning with plenty of soap and water. Warning	ician if you feel unwell. ition comfortable for breathing.						



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	P362+	-364: Take off conta	aminated clothing and wash it	before reuse.						
		Storage and Dispo	-							
			for Storage and Section 13 for Disposal information.							
2.3		e Human Health	Causes serious eye irritation.							
		and Symptoms:	Causes skin irritation.							
	Liicoto	und cymptome.	Harmful if swallowed.							
				he mucous membrar	nes and upper res	spiratory tract.				
			Material may be irritating to the mucous membranes and upper respiratory tract. May be harmful by inhalation, ingestion, or skin absorption.							
			May cause respiratory system	m irritation.						
			To the best of our knowledge	e, the toxicological pr	operties have not	t been thoroughly investigated.				
		Sect	ion 3. Composition	/Information	on Ingredie	nts				
CAS # / Hazardous Co		Hazardous Comp	oonents (Chemical Name)/	Concentration	EC No./	GHS Classification				
RTEC	CS #	REACH Registrat	tion No.		EC Index No.					
14508	24-22-2	TD139		100.0 %	NA	Acute Tox.(O) 4: H302				
NA					NA	Skin Corr. 2: H315				
						Eye Damage 2A: H319				
						STOT (SE) 3: H335 H336				
			Section 4. Fi	rst Aid Measu	ires					
4.1	-	otion of First Aid								
	Measur									
	In Case	of Inhalation:			l respiration or giv	ve oxygen by trained personne				
			Get immediate medical attent							
	In Case	of Skin Contact:	-			5 minutes. Remove contaminat				
			clothing. Get medical attentio		-					
	In Case	of Eye Contact:			ater for at least 1	5 minutes. Have eyes examine				
			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.	dical attention. Do N	OT Induce vomitii	ng unless directed to do so by				
				Eighting Mar						
			Section 5. Fire	<u> </u>						
5.1		e Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.							
	Media:		Use water spray to cool fire-exposed containers.							
		able Extinguishing	A solid water stream may be	inefficient.						
	Media:									
5.2	Flammable Properties and No data available.									
	Hazard	s:								
			No data available.							
	Flash P	't:	No data.							
	Explosi	ive Limits:	LEL: No data.	UEL: No da	ita.					
	Autoigr	nition Pt:	No data.							
5.3	Fire Fig	hting Instructions	As in any fire, wear self-cont	ained breathing appa	aratus pressure-d	emand (NIOSH approved or				
			equivalent), and full protectiv	e gear to prevent co	ntact with skin an	d eyes.				



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		Section 6. Accidental Release Measures						
6.1	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).						
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.						
	-	Transfer to a chemical waste container for disposal in accordance with local regulations.						
	Up:							
		Section 7. Handling and Storage						
7.1		Avoid breathing dust/fume/gas/mist/vapours/spray.						
	in Handling:	Avoid prolonged or repeated exposure.						
7.2		Keep container tightly closed.						
	in Storing:	Store in accordance with information listed on the product insert.						
	Secti	on 8. Exposure Controls/Personal Protection						
8.1	Exposure Parameters:							
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 equipment:							
	Eye Protection:	Safety glasses						
	Protective Gloves:	Compatible chemical-resistant gloves						
	Other Protective Clothing:	Lab coat						
	Respiratory Equipment	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.						
	Se	ection 9. Physical and Chemical Properties						
9.1	-	cal and Chemical Properties						
	Physical States:	[]Gas []Liquid [X]Solid						
	Appearance and Odor:	A crystalline solid						
	pH:	No data.						
	Melting Point:	No data.						
	Boiling Point:	No data.						
	Flash Pt:	No data. No data.						
	Evaporation Rate:	No data available.						
	Flammability (solid, gas): Explosive Limits:	LEL: No data. UEL: No data.						
	Vapor Pressure (vs. Air or							
	Hg):							
	Vapor Density (vs. Air = 1):	No data.						
		Multi-region format						

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	Specific	Gravity (Water =	1):	No data.								
Solubility in Water:			No data.									
	Solubility Notes:			~0.20 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2); ~25 mg/ml in EtOH; ~30 mg/ml in DMSO & DMF;								
	Octanol/	Water Partition		No data.								
	Coefficie	nt:										
Autoignition Pt:			No data.									
	Decomposition Temperatu Viscosity:			No data.								
				No data.								
9.2	Other Information Percent Volatile: Molecular Formula & Weig											
				No data.								
			ght: C28H30F2N6O8S 648.6									
			S	ection	10. Sta	bility and	d Reacti	vity				
10.1	Reactivit	y:	No dat	ta availabl	e.							
10.2	Stability:		Unstat	ole []	Stable [X]						
10.3	Stability	Note(s):	Stable	if stored i	in accordanc	ce with inform	ation listed	on the product	insert.			
	Polymeri	zation:	Will oc	cur[]	Will not o	ccur [X]						
10.4	Conditio	ns To Avoid:	No dat	ta availabl	e.							
10.5	Incompa	tibility - Materials	strong	oxidizing	agents							
	To Avoid	:										
10.6	Hazardo	us	carbon dioxide carbon monoxide									
	Decompo	osition or										
	Byproducts:		hydrogen fluoride									
				nitrogen oxides								
			sulfur	oxides								
						cological						
11.1	Informati Toxicolo	ion on gical Effects:	The to	xicologica	I effects of t	his product h	ave not beei	n thoroughly st	udied.			
CAS	#	Hazardous Compone		ents (Chemical Name)		NTP	IARC	ACGIH	OSHA			
1450	824-22-2	TD139					n.a.	n.a.	n.a.	n.a.		
	·		S	Section	12. Eco	ological I	nformat	ion		•		
12.1 Toxicity: Avoid release into the environment.												
	Runoff from fire control or dilution water may cause pollution.											
12.2	Persister	nce and	No dat	No data available.								
	Degrada	bility:										
12.3	Bioaccur	nulative	No dat	ta availabl	le.							
	Potential	:										
12.4	Mobility	in Soil:	No data available.									
12.5	Results of assessm											
12.6		verse effects:	No dat	ta availabl	le.							
1												
1												



Multi-region format

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		Section 13. Dispos	sal Considera	tions		
13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.						
		Section 14. Tran	sport Informa	ition		
14.1 LAND	TRANSPORT (US	DOT):				
DOT Prop	er Shipping Name	: Not dangerous goods.				
DOT Haza	rd Class:					
UN/NA Ni						
UN Numb	Shipping Name:	Not dangerous goods.				
Hazard Cl						
	ANSPORT (ICAO/	IATA):				
	A Shipping Name:	Not dangerous goods.				
UN Numb	er:		Packing Gro	oup:		
Hazard Cl						
Additional Tr	ansport	Transport in accordance with lo	ocal, state, and feder	al regulations.		
Information:		-				
		Section 15. Regu	latory Informa	ation		
EPA SARA (S	Superfund Amendr	ments and Reauthorization Act	of 1986) Lists			
CAS #	Hazardous Con	nponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
1450824-22-2	TD139		No	No	No	
CAS #	Hazardous Con	nponents (Chemical Name)	Other US EPA or	State Lists		
1450824-22-2	TD139		CAA HAP,ODC: N PROP.65: No	No; CWA NPDES:	No; TSCA: No; CA	
Regulatory In	formation	This SDS was prepared in acco	ordance with 29 CFR	1910.1200 and R	egulation (EC)	
Statement:		No.1272/2008.				
		Section 16. Ot	ner Informatio	n		
	:	09/20/2019				
Revision Date						
	ormation About	No data available.				
Additional Inf This Product:						
Additional Inf This Product:		DISCLAIMER: This information		-		
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe	ver, we make no war	ranty of merchanta	bility or any other warranty	
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec use. Users should make their o	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec use. Users should make their o	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec use. Users should make their o	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec use. Users should make their o	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	
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Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec use. Users should make their o	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec use. Users should make their o	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	
Additional Inf This Product:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec use. Users should make their o	ver, we make no war t to such information	ranty of merchanta and we assume n	bility or any other warranty o liability resulting from its	