

		Section 1 Ide	antition of the Cubeton	nca/Nuvtura and at	ine Company/Hi	naortakina	
			entification of the Substan			писнакіну	
.1	Product Code: 27631						
	Product		HAMNO				
	Synony	ms:	1-[[(2-hydroxyphenyl)ami	no]methylene]-2(1H	)-naphthalenone;	NSC 111847;	
.2	Relevant identified uses of the substance or mixture and uses advised against:						
	Relevant identified uses: For research use only, not for human or veterinary use.						
.3	Details of the Supplier of the Safety Data Sheet:						
	Comp	any Name:	Cayman Chemical Comp	pany			
			1180 E. Ellsworth Rd.				
			Ann Arbor, MI 48108				
		ite address:	www.caymanchem.com		4 (70	1) 07 4 000 5	
	Inform		Cayman Chemical Comp	bany	+1 (734	4)971-3335	
.4	-	ncy telephone numb					
	Emerg	ency Contact:	CHEMTREC Within USA			0)424-9300	
			CHEMTREC Outside US	A and Canada:	+1 (70)	3)527-3887	
			Section 2. Haz	zards Identific	cation		
2.1	Classifi	cation of the Substa	nce or Mixture:				
	Classification of the Substance or Mixture: Label Elements:						
2.2	Label E	lements:					
2.2			Nono				
2.2	GHS S	Signal Word:	None				
2.2	GHS S GHS I	Signal Word: Hazard Phrases:		stance or mixture is	not classifiable as	coording to CHS	
2.2	GHS S GHS H Based	Signal Word: Hazard Phrases: I on evaluation of curre	None ently available data this subs	stance or mixture is	not classifiable ac	cording to GHS.	
2.2	GHS S GHS H Based GHS H	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases:		stance or mixture is	not classifiable ac	ccording to GHS.	
2.2	GHS S GHS H Based GHS H No ph	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply.		stance or mixture is	not classifiable ac	cording to GHS.	
2.2	GHS S GHS H Based GHS F No ph GHS F	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases:		stance or mixture is	not classifiable ac	cording to GHS.	
2.2	GHS S GHS H Based GHS H No ph GHS H	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply.	ently available data this subs	stance or mixture is	not classifiable ac	cording to GHS.	
2.2	GHS S GHS F Based GHS F No ph GHS F No ph	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa	ently available data this subs			cording to GHS.	
2.2	GHS S GHS F Based GHS F No ph GHS F No ph	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa	ently available data this subs			cording to GHS.	
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	GHS S GHS F Based GHS F No ph GHS S Please Advers	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health M and Symptoms: M	ently available data this subs I Phrases: Storage and Section 13 for laterial may be irritating to th lay be harmful by inhalation	Disposal information he mucous membrar , ingestion, or skin a	n. nes and upper res bsorption.		
	GHS S GHS F Based GHS F No ph GHS S Please Advers	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health and Symptoms: M	ently available data this subs I <b>Phrases:</b> Storage and Section 13 for laterial may be irritating to th lay be harmful by inhalation, lay cause eye, skin, or respi	Disposal information he mucous membran , ingestion, or skin a iratory system irritati	n. nes and upper res bsorption. on.	spiratory tract.	
	GHS S GHS F Based GHS F No ph GHS S Please Advers	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health and Symptoms: M	ently available data this subs I Phrases: Storage and Section 13 for laterial may be irritating to th lay be harmful by inhalation	Disposal information he mucous membran , ingestion, or skin a iratory system irritati	n. nes and upper res bsorption. on.	spiratory tract.	
	GHS S GHS F Based GHS F No ph GHS S Please Advers	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health and Symptoms: N T	ently available data this subs I <b>Phrases:</b> Storage and Section 13 for laterial may be irritating to th lay be harmful by inhalation, lay cause eye, skin, or respi	Disposal information he mucous membran , ingestion, or skin a iratory system irritati e, the toxicological pr	n. nes and upper res bsorption. on. roperties have not	spiratory tract. t been thoroughly investiga	
2.2 CAS	GHS S GHS F Based GHS F No ph GHS S Please Advers Effects	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health M and Symptoms: M T Sectio	ently available data this subs I Phrases: Storage and Section 13 for laterial may be irritating to th lay be harmful by inhalation, lay cause eye, skin, or respi o the best of our knowledge	Disposal information he mucous membran , ingestion, or skin a iratory system irritati e, the toxicological pr	n. nes and upper res bsorption. on. roperties have not	spiratory tract. t been thoroughly investiga	
2.3	GHS S GHS F Based GHS F No ph GHS S Please Advers Effects	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health M and Symptoms: M T Sectio	ently available data this subs I Phrases: Storage and Section 13 for faterial may be irritating to th fay be harmful by inhalation, fay cause eye, skin, or respi to the best of our knowledge on 3. Composition, ments (Chemical Name)/	Disposal information he mucous membran , ingestion, or skin a iratory system irritati a, the toxicological pr /Information (	n. hes and upper res bsorption. on. operties have not	spiratory tract. t been thoroughly investiga nts	
2.3 CAS	GHS S GHS F Based GHS F No ph GHS S Please Advers Effects	Signal Word: Hazard Phrases: I on evaluation of curre Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health M and Symptoms: M T Section Hazardous Compor REACH Registratio	ently available data this subs I Phrases: Storage and Section 13 for faterial may be irritating to th fay be harmful by inhalation, fay cause eye, skin, or respi to the best of our knowledge on 3. Composition, ments (Chemical Name)/	Disposal information he mucous membran , ingestion, or skin a iratory system irritati a, the toxicological pr /Information (	n. hes and upper res bsorption. on. roperties have not On Ingrediel EC No./	spiratory tract. t been thoroughly investiga nts	



Revision: 09/13/2019

		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.
	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
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 Extinguishino Media:	g A solid water stream may be inefficient.
5.2	Flammable Properties an Hazards:	I <b>d</b> No data available.
		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 Precautions:	Take steps to avoid release into the environment, if safe to do so.
6.3	Methods and Material Fo	r Contain spill and collect, as appropriate.
	Containment and Cleanin	hgTransfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
		Section 7. Handling and Storage
7.1	Precautions To Be Taker	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taker	NKeep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Sec	tion 8. Exposure Controls/Personal Protection
8.1	Exposure Parameters:	



# SAFETY DATA SHEET

Cay	man	HAMNO Revision: 09/13/2019
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	
	Eye Protection:	Safety glasses
	Protective Gloves:	Compatible chemical-resistant gloves
	Other Protective Clothing	
	Respiratory Equipment	NIOSH approved respirator, as conditions warrant.
	(Specify Type):	
	Work/Hygienic/Maintenan	Do not take internally
	ce Practices:	Facilities storing or utilizing this material should be equipped with an eyewash and a safety showe
		Wash thoroughly after handling.
		No data available.
	Se	ection 9. Physical and Chemical Properties
9.1		sical 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.
	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)	): No data.
	Specific Gravity (Water =	1): No data.
	Solubility in Water:	No data.
	Solubility Notes:	~0.25 mg/ml in a 1:30 solution of DMSO:PBS (pH 7.2); ~30 mg/ml in DMSO & DMF;
	Octanol/Water Partition	No data.
	Coefficient:	
	Autoignition Pt:	No data.
	Decomposition Temperate	
	Viscosity:	No data.
9.2	Other Information	
0.2	Percent Volatile:	No data.
	Molecular Formula & Weig	
	Molecular Formula & Weig	<b>jnt:</b> C17H13NO2 203.3



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			Section 10. Stability a	nd Reactiv	vity			
10.1	Reactivit	ty:	No data available.					
10.2 Stability: Unstable [] Stable [X]								
10.3	Stability	Note(s):	Stable if stored in accordance with information listed on the product insert.					
	Polymer	ization:	Will occur [ ] Will not occur [ X ]					
10.4	0.4 Conditions To Avoid:		No data available.					
10.5 Incompatibility - Materials strong oxidizing agents								
	To Avoid	d:						
10.6	Hazardous		carbon dioxide					
	Decomp	osition or	carbon monoxide					
	Byprodu	icts:	nitrogen oxides					
			Section 11. Toxicologic	cal Informa	ation			
11.1	Informat	ion on	The toxicological effects of this produc	t have not beer	thoroughly st	udied.		
	Toxicolo	gical Effects:						
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
1387	/36-73-9	1-[[(2-Hydroxyphe	enyl)imino]methyl]-2-naphthalenol	n.a.	n.a.	n.a.	n.a.	
		+	Section 12. Ecologica	l Informat	ion	•	•	
12.1	Toxicity	:	Avoid release into the environment.					
	-		Runoff from fire control or dilution wate	er may cause po	ollution.			
12.2 Persistence and			No data available.					
12.2	Persiste	nce and	No data available.					
12.2	Degrada		No data available.					
		bility:	No data available. No data available.					
	Degrada	bility: mulative						
12.3	Degrada Bioaccu	bility: mulative I:						
12.3	Degrada Bioaccu Potentia Mobility	bility: mulative I: in Soil:	No data available.					
12.3 12.4	Degrada Bioaccu Potentia Mobility	bility: mulative I: in Soil: of PBT and vPvB	No data available. No data available.					
12.3 12.4	Degrada Bioaccu Potentia Mobility Results assessm	bility: mulative I: in Soil: of PBT and vPvB	No data available. No data available.					
12.3 12.4 12.5	Degrada Bioaccu Potentia Mobility Results assessm	bility: mulative I: in Soil: of PBT and vPvB nent:	No data available. No data available. No data available. No data available.	Considerat	ions			
12.3 12.4 12.5	Degrada Bioaccu Potentia Mobility Results assessm Other ad	bility: mulative I: in Soil: of PBT and vPvB nent:	No data available. No data available. No data available.					
12.3 12.4 12.5 12.6	Degrada Bioaccu Potentia Mobility Results assessm Other ad	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects:	No data available. No data available. No data available. No data available. <b>Section 13. Disposal C</b> Dispose in accordance with local, state	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method:	No data available. No data available. No data available. No data available. <b>Section 13. Disposal C</b> Dispose in accordance with local, state <b>Section 14. Transpor</b>	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I r Shipping Name:	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class:	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T DOT Prope	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber:	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor DOT): Not dangerous goods.	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1 C U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Proper OT Hazard IN/NA Nun LAND T	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor DOT): Not dangerous goods.	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1 C 14.1 A	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Proper OT Hazard	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name:	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor DOT): Not dangerous goods.	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Prope OT Hazard IN/NA Nun LAND T	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor DOT): Not dangerous goods.	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T DOT Prope OT Hazard IN/NA Num LAND T	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor DOT): Not dangerous goods.	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Prope OT Hazard IN/NA Nun LAND T	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor DOT): Not dangerous goods.	e, and federal re	egulations.			
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Prope OT Hazard IN/NA Nun LAND T	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal C Dispose in accordance with local, state Section 14. Transpor DOT): Not dangerous goods.	e, and federal re	egulations.			
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4
Calman
Cayman

14.3 AIR TRANSPORT (ICAO/IATA): ICAO/IATA Shipping Name: N

Not dangerous goods.

Additional Transport Information:

## Section 15. Regulatory Information

Transport in accordance with local, state, and federal regulations.

CAS # Hazardous Com		ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
138736-73-9	1-[[(2-Hydroxyphenyl)imino]methyl]-2-naphthaleno		No	No	No	
CAS # Hazardous Com		ponents (Chemical Name)	Other US EPA or State Lists			
138736-73-9	1-[[(2-Hydroxyphenyl)imino]methyl]-2-naphthaleno		CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
Regulatory Inf	ormation	This SDS was prepared in accor	dance with 29 CFR	1910.1200 and R	egulation (EC)	
Statement:		No.1272/2008.				
		Section 16. Oth	er Informatio	on		
Revision Date:		09/13/2019				
Additional Information About This Product:		No data available.				
Company Policy or Disclaimer:		DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.				