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Revision:	04/27/2016
1.0011010111	0 1/21/2010

	according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008 Section 1. Identification of the Substance/Mixture and of the Company/Undertaking				
	Section 1. Ide	entification of the Substance/Mixture and of th	e Company/Undertaking		
1	Product Code:	19096			
	Product Name:	Flavoxate (hydrochloride)			
	Synonyms:	3-methyl-4-oxo-2-phenyl-4H-1-benzopyran-8-ca monohydrochloride; NSC 114649; Rec 7/0040;			
2	Relevant identified uses of t	he substance or mixture and uses advised aga	ainst:		
	Relevant identified uses:	For research use only, not for human or veterin	ary use.		
3	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		
1	Emergency telephone numb	er:			
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300		
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887		
_		Section 2. Hazards Identifica	ation		
	Classification of the Substan Acute Toxicity: Oral, Categ Skin Corrosion/Irritation, C Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements:	nce or Mixture: gory 4 Category 2			
	Acute Toxicity: Oral, Categ Skin Corrosion/Irritation, C Serious Eye Damage/Eye I Specific Target Organ Tox	nce or Mixture: gory 4 Category 2 Irritation, Category 2			
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	Acute Toxicity: Oral, Categ Skin Corrosion/Irritation, C Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements:	nce or Mixture: gory 4 Category 2 Irritation, Category 2 ricity (single exposure), Category 3			
	Acute Toxicity: Oral, Catego Skin Corrosion/Irritation, C Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed.	nce or Mixture: gory 4 Category 2 Irritation, Category 2 Sicity (single exposure), Category 3 Warning			
	Acute Toxicity: Oral, Catego Skin Corrosion/Irritation, C Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation.	nce or Mixture: gory 4 Category 2 Irritation, Category 2 Scicity (single exposure), Category 3 Warning			
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2	Acute Toxicity: Oral, Catego Skin Corrosion/Irritation, C Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H335: May cause respiratory GHS Precaution Phrases: P261: Avoid breathing {dust. P264: Wash {hands} thoroug P280: Wear {protective glov. GHS Response Phrases: P301+312: IF SWALLOWED P302+352: IF ON SKIN: Wa	nce or Mixture: gory 4 Category 2 Irritation, Category 2 Kicity (single exposure), Category 3 Warning Warning Warning /fume/gas/mist/vapors/spray}. ghly after handling. es/protective clothing/eye protection/face protection D: Call a POISON CENTER or doctor/physician if y ash with plenty of soap and water.	on}. you feel unwell.		
	Acute Toxicity: Oral, Catego Skin Corrosion/Irritation, C Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H335: May cause respiratory GHS Precaution Phrases: P261: Avoid breathing {dust P264: Wash {hands} thoroug P280: Wear {protective glove GHS Response Phrases: P301+312: IF SWALLOWED P302+352: IF ON SKIN: Wa P304+340: IF INHALED: Re	nce or Mixture: gory 4 Category 2 Irritation, Category 2 Arcity (single exposure), Category 3 Warning Warning	on}. you feel unwell.		
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# SAFETY DATA SHEET Flavoxate (hydrochloride)

2.3	P332+ P337+ P362+ GHS S Please Adverse	313: If eye irritation 364: Take off conta Storage and Dispo	for Storage and Section 13 for Causes serious eye irritation Causes skin irritation. Harmful if swallowed. Material may be irritating to t May be harmful by inhalation May cause respiratory system	attention. before reuse. r Disposal informatic he mucous membra n or skin absorption. m irritation.	ines and upper re	spiratory tract. t been thoroughly investigated.
		Sec	tion 3. Composition	/Information	on Ingredie	nts
CAS RTE	;#/ CS#	Hazardous Com REACH Registra	oonents (Chemical Name)/ tion No.	Concentration	EC No./ EC Index No.	GHS Classification
-	7-88-2 50000	Flavoxate hydrochlo	ride	100.0 %	223-066-4 NA	Acute Tox.(O) 4: H302 Skin Corr. 2: H315 Eye Damage 2: H319 STOT (SE) 3: H335
			Section 4. Fi	rst Aid Meas	ures	
	In Case In Case	of Inhalation: of Skin Contact: of Eye Contact: of Ingestion:	Get immediate medical atten Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p	tion. coap and plenty of w on if symptoms occu eyes with plenty of v nnel. provided person is co	ater for at least 1 r. Wash clothing b vater for at least 1 ponscious. Never g	5 minutes. Have eyes examined
			medical personnel.			
			medical personnel. Section 5. Fire	Fighting Me	asures	
5.1	Media:	e Extinguishing Ible Extinguishing		carbon dioxide, wate exposed containers.	er, or dry chemica	l spray.
	Media: Unsuita Media:	ble Extinguishing	Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire-	carbon dioxide, wate exposed containers.	er, or dry chemica	l spray.
5.1	Media: Unsuita Media: Flamma Hazards Flash P Explosi	ble Extinguishing able Properties an s:	Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire- A solid water stream may be dNo data available.	carbon dioxide, wate exposed containers.	er, or dry chemica	l spray.
	Media: Unsuita Media: Flamma Hazards Flash P Explosi Autoigr	able Extinguishing able Properties an s: t: ve Limits: hition Pt:	Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire- A solid water stream may be odNo data available. No data available. No data. LEL: No data.	carbon dioxide, wate exposed containers. inefficient. UEL: No d ained breathing app	er, or dry chemica ata. aratus pressure-c	lemand (NIOSH approved or



			Section 6. Acc	cidental Release M	easures			
6.1	Protecti	ive Precautions,	Avoid raising and bre	eathing dust, and provide adec	quate ventilation.			
	Protecti	ve Equipment and	d As conditions warran	t, wear a NIOSH approved se	If-contained breathing appara	atus, or respirator,		
	Emerge	ncy Procedures:	and appropriate pers	onal protection (rubber boots,	safety goggles, and heavy r	ubber gloves).		
6.2	Environ	mental	Take steps to avoid r	elease into the environment, i	if safe to do so.			
	Precaut	ions:						
6.3			r Contain spill and colle					
		ment and Cleanin	ng Transfer to a chemica	al waste container for disposa	I in accordance with local rec	gulations.		
	Up:							
			Section 7.	Handling and Stor	rage			
7.1	Precaut	ions To Be Taken	Avoid breathing dust/	fume/gas/mist/vapours/spray.				
	in Handling: Avoid prolonged or repeated exposure.							
7.2			Keep container tightly					
	in Storii	ng:	Store in accordance v	with information listed on the p	product insert.			
		Sec	tion 8. Exposu	re Controls/Person	al Protection			
8.1	Exposur	e Parameters:						
CAS #	#	Partial Chemical	Name	Britain EH40	France VL	Europe		
371	7-88-2	Flavoxate hydroch	hloride	No data.	No data.	No data.		
CAS #	#	Partial Chemical	Name	OSHA TWA	ACGIH TWA	Other Limits		
371	7-88-2	Flavoxate hydroch	hloride	No data.	No data.	No data.		
8.2	Exposu	re Controls:			+			
8.2.1	Enginee	ering Controls	Use process enclosur	res, local exhaust ventilation,	or other engineering controls	to control airborne		
	(Ventila	tion etc.):	levels below recomme	ended exposure limits.				
8.2.2	Persona	al protection equi	pment:					
	Eye Pro	tection:	Safety glasses					
		ve Gloves:	Compatible chemical-	resistant gloves				
		rotective Clothing	-					
	-	tory Equipment	NIOSH approved resp	pirator, as conditions warrant.				
	(Specify		- De wettelen interneller					
	ce Prac		n Do not take internally.		equipped with an evewash a	nd a safety shower		
	ce Prac	lices:		Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. Wash thoroughly after handling.				
			No data available.					



	Se	ction 9. Physical and Chemical Properties
9.1		cal and Chemical Properties
	Physical States:	[]Gas []Liquid [X]Solid
	Appearance and Odor:	A crystalline solid
	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:	~0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2); ~1 mg/ml in DMSO & DMF;
	Autoignition Pt:	No data.
).2	Other Information	
	Percent Volatile:	No data.
	Molecular Formula & Weig	ht: C24H25NO4 • HCI 427.9
		Section 10. Stability and Reactivity
0.1	•	No data available.
0.2	-	Unstable [ ] Stable [ X ]
0.3		Stable if stored in accordance with information listed on the product insert.
	Polymerization:	Will occur [ ] Will not occur [ X ]
0.4	Conditions To Avoid:	No data available.
0.5	Incompatibility - Materials	oxidizing agents
	To Avoid:	
0.6		No data available.
	Decomposition or	
	Byproducts:	
		Multi region forma
		Multi-region formation



			Section 11. Toxicologi	cal Informa	tion		
11.1	Informatio	on on	The toxicological effects of this produ	ict have not been	thoroughly st	udied.	
	Toxicolog	ical Effects:	Flavoxate (hydrochloride) - Toxicity E	Data: Oral LD50 (r	at): 1040 mg/	kg; Intraperitor	neal LD50 (rat
			170 mg/kg; SubcutaneousLD50 (rat)	1010 mg/kg; Ora	I LD50 (mous	se): 740 mg/kg	; Intraperitone
			LD50 (mouse): 350 mg/kg; Subcutan	eous LD50 (mous	se): 610 mg/k	g;	
	Chronic T	oxicological	Flavoxate (hydrochloride) - Investiga	ted as a mutagen	and reproduc	tive effector.	
	Effects:		Only select Registry of Toxic Effects		tances (RTE	CS) data is pre	sented here.
			See actual entry in RTECS for comp		-		
			Flavoxate (hydrochloride) RTECS Nu	umber: DJ245000	0		
CAS			ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA
371	7-88-2 F	lavoxate hydroc	hloride	n.a.	n.a.	n.a.	n.a.
			Section 12. Ecologic	al Informati	on		
12.1	Toxicity:		Avoid release into the environment.				
			Runoff from fire control or dilution wa	ter may cause po	llution.		
12.2	Persisten	ce and	No data available.				
	Degradab	ility:					
12.3	Bioaccum	ulative	No data available.				
	Potential:						
12.4	Mobility in	n Soil:	No data available.				
12.5	Results of	FPBT and vPvB	No data available.				
	assessme	nt:					
12.6	Other adv	erse effects:	No data available.				
			Section 13. Disposal	Considerati	ons		
13.1	Waste Dis	posal Method:	•				
			Section 14. Transpo	ort Informati	on		
14.1	LAND TR	ANSPORT (US I	DOT):				
D	OT Proper	Shipping Name:	Not dangerous goods.				
Л	OT Hazard	Class:					
	N/NA Numb	per:					
U			opean ADR/RID):				
U 14.1	LAND TR	ANSPORT (Euro	opean ADR/RID): Not dangerous goods.				
U 14.1 A	LAND TR		• •				
U 14.1 A U	LAND TR DR/RID Shi	ANSPORT (Euro pping Name:	• •				
U 14.1 A U	LAND TR DR/RID Shi N Number: azard Class	ANSPORT (Euro pping Name:	Not dangerous goods.				
U 14.1 A U H 14.3	LAND TR DR/RID Shi N Number: azard Class AIR TRAN	ANSPORT (Euro pping Name: s: ISPORT (ICAO/I	Not dangerous goods.				
U 14.1 A U H 14.3 IC	LAND TR DR/RID Shi N Number: azard Class AIR TRAN	ANSPORT (Euro pping Name: s: ISPORT (ICAO/I hipping Name:	Not dangerous goods.	tate. and federal	regulations.		



EPA SARA (Su		Section 15. Regu			
		nents and Reauthorization Act			
CAS #		ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
3717-88-2	Flavoxate hydroc	hloride	No	No	No
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA o		
3717-88-2	Flavoxate hydroc	hloride	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No		
Regulatory Info Statement:	ormation	This SDS was prepared in acc No.1272/2008.	ordance with 29 CFF	R 1910.1200 and R	egulation (EC)
		Section 16. Ot	her Information	on	
Revision Date:		04/27/2016			
Additional Info	rmation About	No data available.			
This Product:					
		their particular purposes.			