according to the Hazardous Products Regulations



OCTTAIN[™] XL Herbicide

- single exposure

Aspiration hazard

GHS label elements Hazard pictograms

Signal word

Version	Revision Date:	SDS Number:	Date of last issue: 01/25/2023
2.0	11/16/2023	800080002725	Date of first issue: 01/25/2023

Corteva Agriscience[™] encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of Canada and may not meet the regulatory requirements in other countries.

SECTION 1. IDENTIFICATION Product name Other means of identification	:	OCTTAIN™ XL Herbicide No data available
Manufacturer or supplier's d	etai	ils
COMPANY IDENTIFICATION		
Manufacturer/importer	:	CORTEVA AGRISCIENCE CANADA COMPANY SUITE 240, 115 QUARRY PARK RD. SE CALGARY AB, T2C 5G9 CANADA
Customer Information	:	800-667-3852
Number E-mail address	:	solutions@corteva.com
Emergency telephone number	:	Corteva Canada Solutions
		1-800-667-3852
Recommended use of the ch	em	ical and restrictions on use
Recommended use	:	End use herbicide product
SECTION 2. HAZARDS IDENTIFIC	;ΑТ	ION
GHS classification in accord	anc	e with the Hazardous Products Regulations
Flammable liquids	:	Category 4
Acute toxicity (Oral)	:	Category 4
Skin irritation	:	Category 2
Carcinogenicity	:	Category 2
Specific target organ toxicity	:	Category 3 (Central nervous system)

Danger

Category 1

2

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Hazar	rd statements	H315 Causes s H336 May caus	f swallowed. atal if swallowed and enters airways.	
Preca	utionary statements	Prevention:		
		P202 Do not ha and understood P210 Keep awa and other ignitio P261 Avoid bre P264 Wash ski P270 Do not ea P271 Use only	vay from heat, hot surfaces, sparks, open flames tion sources. No smoking. reathing mist or vapours. kin thoroughly after handling. eat, drink or smoke when using this product. y outdoors or in a well-ventilated area. rotective gloves/ protective clothing/ eye protectio	
		Response:		
		P301 + P310 IF CENTER/ docto P302 + P352 IF P304 + P340 + and keep comfo doctor if you fee P308 + P313 IF tention. P331 Do NOT i P332 + P313 If tion. P362 + P364 Ta reuse. P370 + P378 In hol-resistant foa	ON SKIN: Wash with plenty of water. P312 IF INHALED: Remove person to fresh air ortable for breathing. Call a POISON CENTER/	
		tightly closed.	tore in a well-ventilated place. Keep container	
		P405 Store lock	ked up.	
		Disposal:	for the formation of the second se	
		P501 Dispose o posal plant.	of contents/ container to an approved waste dis	
	hazards			
None k	known.			

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture



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Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
2,4-D 2-ethylhexyl es- ter	2,4-D 2- ethylhexyl ester	1928-43-4	50.99
fluroxypyr-meptyl (ISO)	fluroxypyr-mep- tyl (ISO)	81406-37-3	12.17
Solvent naphtha (petro- leum), heavy arom.; Kerosine — unspeci- fied	Solvent naphtha (petroleum), heavy arom.; Kerosine — un- specified	64742-94-5	>= 25 - < 30 *
Benzenesulfonic acid, mono-C11-13- branched alkyl derivs., calcium salts	Benzenesulfonic acid, mono- C11-13- branched alkyl derivs., calcium salts	68953-96-8	>= 1 - < 3 *
hexan-1-ol	hexan-1-ol	111-27-3	>= 1 - < 3 *
Hydrocarbons, C10, ar- omatics, <1% naphtha- lene		1189173-42-9	>= 1 - < 3 *
2,4-D (ISO)	2,4-D (ISO)	94-75-7	>= 0.1 - < 0.3 *
naphthalene	naphthalene	91-20-3	>= 0.1 - < 0.3 *

* Actual concentration or concentration range is withheld as a trade secret

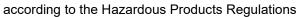
SECTION 4. FIRST AID MEASURE	is a second s
If inhaled	: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.
In case of skin contact	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Suitable emergency safety shower facility should be available in work area.
In case of eye contact	 Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.
If swallowed	: Immediately call a poison control center or doctor. Do not in- duce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	: None known.



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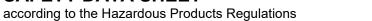
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		ion of first-aiders o physician	:	First Aid responders should pay attention to self-protecti and use the recommended protective clothing (chemical sistant gloves, splash protection). If potential for exposure exists refer to Section 8 for spec personal protective equipment. If lavage is performed, suggest endotracheal and/or eso geal control. Danger from lung aspiration must be weigh against toxicity when considering emptying the stomach The decision of whether to induce vomiting or not should made by a physician. No specific antidote. Treatment of exposure should be directed at the control symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product tainer or label with you when calling a poison control cert doctor, or going for treatment. Skin contact may aggravate preexisting dermatitis.	
SECT	ION 5.	FIREFIGHTING MEAS	SUR	ES	
		e extinguishing media	:	Water spray Alcohol-resistant f Carbon dioxide (C	
	Unsuita dia	ble extinguishing me-	:	Do not use direct High volume wate	water stream.
	Specific fighting	c hazards during fire-	:	Exposure to comb Vapours may form Do not allow run-o courses.	bustion products may be a hazard to health. n explosive mixtures with air. off from fire fighting to enter drains or water
	Hazard ucts	ous combustion prod-	:	During a fire, smo tion to combustion be toxic and/or irri Combustion produ Carbon oxides	ucts may include and are not limited to:
	Specific ods	c extinguishing meth-	:	so. Evacuate area. Use extinguishing cumstances and t	ged containers from fire area if it is safe to do measures that are appropriate to local cir- he surrounding environment.
	Further	information	:	Use water spray to fected zone until f passed. Do not use a solid fire. Use a water spray Collect contamina must not be disch Fire residues and	o cool unopened containers. o cool fire exposed containers and fire af- ire is out and danger of reignition has I water stream as it may scatter and spread to cool fully closed containers. Ited fire extinguishing water separately. This arged into drains. contaminated fire extinguishing water must accordance with local regulations.
	Special for firefi	protective equipment ghters	:		e, wear self-contained breathing apparatus.





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Per: tive	1 6. ACCIDENTAL RELE sonal precautions, protec- equipment and emer- cy procedures	: Ensure adequa Use personal p Use appropriat	ate ventilation. protective equipment. e safety equipment. For additional information, n 8, Exposure Controls and Personal Protection
Env	ironmental precautions	respective auth Discharge into Prevent further Prevent spread barriers). Retain and dis Local authoritie not be containe Prevent from e	the environment must be avoided. leakage or spillage if safe to do so. ling over a wide area (e.g. by containment or oi pose of contaminated wash water. es should be advised if significant spillages can-
	hods and materials for tainment and cleaning up	ant. Local or nation posal of this m employed in. For large spills ment to keep n be pumped, Recovered ma The vent must with spilled ma pressurization Keep in suitabl Wipe up with a Neutralize with Non-sparking t Contain spillag bent material, (lite) and place tional regulatio Suppress (kno spray jet.	ining materials from spill with suitable absorb- al regulations may apply to releases and dis- aterial, as well as those materials and items , provide dyking or other appropriate contain- naterial from spreading. If dyked material can terial should be stored in a vented container. prevent the ingress of water as further reaction terials can take place which could lead to over- of the container. e, closed containers for disposal. bsorbent material (e.g. cloth, fleece). chalk, alkali solution or ammonia. ools should be used. e, and then collect with non-combustible absor- (e.g. sand, earth, diatomaceous earth, vermicu- in container for disposal according to local / na- ns (see section 13). ck down) gases/vapours/mists with a water 8, Disposal Considerations, for additional infor-
Loc	I 7. HANDLING AND STC al/Total ventilation rice on safe handling	: Use with local : Avoid formation Provide sufficien Do not breathen Do not smoke.	ent air exchange and/or exhaust in work rooms. vapours/dust.





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		cation area. Do not get of Do not breat Do not swalle Avoid contac Avoid contac Keep contair Keep away f Take precau Take care to environment Use appropri	t with skin and eyes. t with eyes. her tightly closed. rom heat and sources of ignition. tionary measures against static discharges. prevent spills, waste and minimize release to the
C	Conditions for safe storage	No smoking. Containers w kept upright Keep in prop	osed container. which are opened must be carefully resealed and to prevent leakage. erly labelled containers. ordance with the particular national regulations.
N	laterials to avoid	: Do not store Strong oxidiz Explosives Gases	near acids.
F	Packaging material		naterial: None known.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of ex- posure)	Control parame- ters / Permissible concentration	Basis
2,4-D 2-ethylhexyl ester	1928-43-4		10 mg/m3	Dow IHG
		TWA	10 mg/m3	CA BC OEL
		STEL	20 mg/m3	CA BC OEL
Solvent naphtha (petroleum), heavy arom.; Kerosine — un- specified	64742-94-5	TWA	100 mg/m3	Corteva OEL
		STEL	300 mg/m3	Corteva OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	CA AB OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
fluroxypyr-meptyl (ISO)	81406-37-3	TWA	10 mg/m3	Dow IHG
2,4-D (ISO)	94-75-7	TWA	10 mg/m3	CA AB OEL
		TWAEV	10 mg/m3	CA QC OEL
		TWA	10 mg/m3	CA BC OEL
		STEL	20 mg/m3	CA BC OEL
		TWA (Inhalable	10 mg/m3	ACGIH



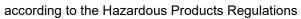
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				particulate matter)		
nonh	thalene		91-20-3	TWA	10 ppm	Dow IHG
парп			91-20-3	STEL	10 ppm 15 ppm	Dow IHG
				TWA	10 ppm 52 mg/m3	CA AB OEL
				STEL	15 ppm 79 mg/m3	CA AB OEL
				TWA	10 ppm	CA BC OEL
				TWAEV	10 ppm	CA QC OEL
				TWA	10 ppm	ACGIH
Engi	neering measures	:	maintain airb guidelines. I ments or guid for most ope	orne levels belc f there are no a delines, general rations.	 or other engineer w exposure limit replicable exposure ventilation should y be necessary for 	equirements or limit require- be sufficient
Perso	nal protective equipr	nent				
Personal protective equipment Respiratory protection : Respiratory protection : Respiratory protection should be worn when there is a tial to exceed the exposure limit requirements or guide. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse e such as respiratory irritation or discomfort have been e enced, or where indicated by your risk assessment profection should be needed; however, if discomfort is experienced, use an enced.				r guidelines. ments or verse effects, been experi- nent process. nould be		
Hand	d protection		proved all-pt	irifying respirato	.	
R	emarks	:	preferred glo vinyl alcohol Examples of rubber. Chlon Neoprene. N nyl chloride (specific glove in a workplace workplace fa which may be protection, de tions to glove tions provide	ve barrier mater laminate ("EVA acceptable glow inated polyethy itrile/butadiene f "PVC" or "vinyl" e for a particular ce should also ta ctors such as, b e handled, phys exterity, thermal e materials, as w d by the glove s		thylene. Ethyl ene rubber. include: Butyl er ("latex"). NBR"). Polyvi- lection of a iration of use relevant ther chemicals cut/puncture ial body reac-
	protection and body protection	:	Use protective Selection of s		nically resistant to t uch as face shield,	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance





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Colou	ır	:	Yellow to orange	e	
Odou Odou	ır ır Threshold	:	Mild No data availab	le	
рН		:	3.92 (24.8 °C) Concentration: 1 % Method: pH Electrode (1% aqueous suspension)		
Meltir	ng point/range	:	Not applicable		
Freez	zing point		No data availab	le	
Boilin	g point/boiling range	:	No data availab	le	
Flash	point	:	73.5 °C		
			Method: Closed	Cup, closed cup	
Evap	oration rate	:	No data availab	le	
Flam	mability (solid, gas)	:	Not applicable to	o liquids	
	r explosion limit / Upper nability limit	:	No data available		
	r explosion limit / Lower nability limit	:	No data availab	le	
Vapo	ur pressure	:	No data availab	le	
Relat	ive vapour density	:	No data availab	le	
Relat	ive density	:	No data availab	le	
Dens	ity	:	1.0604 g/cm3 (2 Method: Digital		
	ility(ies) ater solubility		No data availab	-	
	ignition temperature	•	No data availab		
		•			
Viscos Vi	sity scosity, dynamic	:	13.1 mPa,s (20	°C)	
			6.38 mPa,s (40	°C)	
Explo	osive properties	:	No		
Oxidi	zing properties	:	No significant in	crease (>5C) in temperature.	

SECTION 10. STABILITY AND REACTIVITY



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Chemi Possit tions Condit Incom Hazard	Reactivity Chemical stability Possibility of hazardous reac-		 Not classified as a reactivity hazard. No decomposition if stored and applied as directed. Stable under normal conditions. Stable under recommended storage conditions. No hazards to be specially mentioned. Vapours may form explosive mixture with air. May form explosive dust-air mixture. Heat, flames and sparks. Acids Bases Oxidizing agents Decomposition products depend upon temperature, a and the presence of other materials. Decomposition products can include and are not limit Carbon oxides Hydrogen chloride gas 			
SECTION 1	1. TOXICOLOGICAL IN	IFO	RMATION			
	toxicity					
Produc Acute	oral toxicity	:	LD50 (Rat, female Method: OECD Te			
Acute	Acute inhalation toxicity		Exposure time: 4 Test atmosphere: Symptoms: No de			
Acute	dermal toxicity	:	LD50 (Rat, male a	and female): > 5,000 mg/kg		
Compo	onents:					
	2-ethylhexyl ester: oral toxicity	:	LD50 (Rat): 896 n	ng/kg		
Acute	inhalation toxicity	:	posure to vapor. No adverse effect mist.	erse effects are anticipated from single ex- s are anticipated from single exposure to tation and narcotic effects: available.		
			LC50 (Rat): > 5.38 Exposure time: 4 Test atmosphere: Assessment: The tion toxicity	h		
Acute	dermal toxicity	:		2,000 mg/kg aths occurred at this concentration. substance or mixture has no acute dermal		



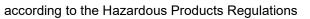
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flurox	ypyr-meptyl (ISO):	
	e oral toxicity	 LD50 (Rat): > 2,000 mg/kg Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute oral to: icity
Acute	inhalation toxicity	 LC50 (Rat, male and female): > 1.16 mg/l Exposure time: 4 h Test atmosphere: dust/mist Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute inhala- tion toxicity Remarks: Maximum attainable concentration.
Acute	e dermal toxicity	 LD50 (Rabbit): > 2,000 mg/kg Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute derma toxicity
Solve	nt naphtha (petroleu	m), heavy arom.; Kerosine — unspecified:
Acute	e oral toxicity	: LD50 (Rat): > 5,000 mg/kg Remarks: For similar material(s):
Acute	e inhalation toxicity	 LC50 (Rat): > 4.688 mg/l Exposure time: 4 h Test atmosphere: vapour Assessment: The substance or mixture has no acute inhala- tion toxicity Remarks: For similar material(s): Maximum attainable concentration.
Acute	e dermal toxicity	 LD50 (Rabbit): > 3,160 mg/kg Assessment: The substance or mixture has no acute derma toxicity Remarks: For similar material(s):
Benze	enesulfonic acid, mo	no-C11-13-branched alkyl derivs., calcium salts:
Acute	e oral toxicity	 LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD 401 or equivalent Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute oral to icity Remarks: For similar material(s):
Acute	e dermal toxicity	: LD50 (Rat, male and female): > 1,000 - < 1,600 mg/kg Method: OECD 402 or equivalent Remarks: For similar material(s):
hexan	1-1-ol:	
Acute	e oral toxicity	: LD50 (Rat): 3,210 mg/kg Remarks: Observations in animals include: May cause central nervous system depression.
Acute	e inhalation toxicity	: LC50 (Rat, male and female): > 21 mg/l

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Acute	e dermal toxicity	: LD50 (Rabbi	t): 2,530 mg/kg
Hydro	ocarbons, C10, aroma	atics, <1% naphtha	lene:
Acute	e oral toxicity		> 5,000 mg/kg or similar material(s):
Acute	e inhalation toxicity	tion toxicity Remarks: Fo	ne: 4 h
Acute	e dermal toxicity	Assessment: toxicity	t): > 2,000 mg/kg : The substance or mixture has no acute dermal or similar material(s):
2,4-D	. ,		
Acute	e oral toxicity	: LD50 (Rat): (639 mg/kg
Acute	e inhalation toxicity	Symptoms: N Assessment tion toxicity	
Acute	e dermal toxicity	: LD50 (Rabbi	t, male and female): > 5,000 mg/kg
napht	halene:		
Acute	e oral toxicity	: LD50 (Rat): 3	> 2,000 mg/kg
		Method: Esti Remarks: Ex impairing the Ingestion of r anemia. Toxicity from animals. In humans, s Confusion. Lethargy.	Accessive exposure may cause hemolysis, thereby e blood's ability to transport oxygen. Inaphthalene by humans has caused hemolytic a swallowing may be greater in humans than in symptoms may include: ms or twitches.





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			Coma.	
Acute inhalation toxicity		:	respiratory tract Excessive expo	ssive exposure may cause irritation to upper (nose and throat). sure may cause lung injury. otoms of excessive exposure may include: vomiting.
			tainable Concer	4 h e: vapour • LC50 value is greater than the Maximum A
Acute	dermal toxicity	:		,500 mg/kg an case reports suggest Naphthalene may b gh the skin in toxic amounts, especially in cł
Skin c	orrosion/irritation		LD50 (Rabbit):	> 2,500 mg/kg
Produ	<u>ct:</u>			
Resul	t	:	Skin irritation	
Comp	onents:			
flurox	ypyr-meptyl (ISO):			
Speci		:	Rabbit	
Resul	-	:	No skin irritatior	
		10-C1		alkyl derivs., calcium salts:
Resul	-	:	Skin irritation	
hexan				
Resul		:	Mild skin irritatio	on
2,4-D (
Speci Resul		:	Rabbit No skin irritatior	
	' is eye damage/eye ir	ritatio		I
Produ	ct:			
Resul		:	No eye irritatior	
<u>Comp</u>	onents:		-	
Benze	nesulfonic acid. mor	10-C1	1-13-branched a	alkyl derivs., calcium salts:
0				



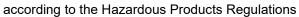
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	n-1-ol:			
Resu	ılt	:	Eye irritation	
2,4-D	(ISO):			
Spec Resu		:	Rabbit Corrosive	
	iratory or skin sensiti	satio		
-	•	outio		
Produ Asse	<u>uct:</u> ssment		Does not cause	skin sensitisation.
	oonents:	•		
	2-ethylhexyl ester:		May cause sen	sitisation by skin contact.
Rem		:		ergic skin reactions when tested in guinea pigs.
Rem	arks	:	For respiratory No relevant dat	
fluro	(ypyr-meptyl (ISO):			
Spec Asse	sies ssment	:	Guinea pig Does not cause	skin sensitisation.
Solve	ent naphtha (petroleur	n), he	avy arom.; Ker	osine — unspecified:
Rem	arks	:	For similar mate Did not cause a pigs.	erial(s): llergic skin reactions when tested in guinea
Rem	arks	:	For respiratory No relevant dat	
Benz	enesulfonic acid, mor	10-C1	1-13-branched a	alkyl derivs., calcium salts:
Rem	arks	:	For skin sensitiz For similar mate Did not cause a pigs.	
Rem	arks	:	For respiratory No relevant dat	
hexai	1-1-ol:			
Asse Rem	ssment arks	:	Did not cause a pigs.	skin sensitisation. Ilergic skin reactions when tested in guinea Ilergic skin reactions when tested in humans.
Rem	arks	:	For respiratory No relevant dat	



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Hydro	carbons, C10, aroma	tice	<1% nanhthale	ne.					
Rema		:	For similar ma						
			Did not cause allergic skin reactions when tested in guine pigs.						
Rema	rks	:	For respiratory No relevant da	/ sensitization: ata found.					
2,4-D (ISO):								
Speci		:	Guinea pig						
Resul		:	May cause se	nsitisation by skin contact.					
-	nalene:		D (
Asses Rema	sment rks			e skin sensitisation. nay cause an allergic skin reaction in a small					
			proportion of i	ndividuals.					
			Did not cause pigs.	allergic skin reactions when tested in guinea					
Rema	rks	:	For respiratory sensitization: No relevant data found.						
Germ	cell mutagenicity								
Comp	onents:								
	2-ethylhexyl ester:								
	cell mutagenicity - As-		In vitro genetic	c toxicity studies were negative., Animal gene					
sessm	u	-		s were negative.					
fluroxy	/pyr-meptyl (ISO):								
Germ sessm	cell mutagenicity - As- ient	• :		c toxicity studies were negative., Animal gene s were negative.					
Solver	it naphtha (petroleun	n), he	avy arom.; Ke	rosine — unspecified:					
Germ sessm	cell mutagenicity - As- nent	· :		terial(s):, In vitro genetic toxicity studies were nal genetic toxicity studies were negative.					
Benze	nesulfonic acid, mon	o-C1		alkyl derivs., calcium salts:					
Germ sessm	cell mutagenicity - As- ient	• :		terial(s):, In vitro genetic toxicity studies were nal genetic toxicity studies were negative.					
hexan	-1-ol:								
Germ sessm	cell mutagenicity - As- ient	· :		c toxicity studies were negative., Animal gene s were negative.					
Hydro	carbons, C10, aroma	tics,	<1% naphthale	ene:					
Germ sessm	cell mutagenicity - As- ient	· :		terial(s):, In vitro genetic toxicity studies were nal genetic toxicity studies were negative.					
2404									
2,4-D (ISO):								
	cell mutagenicity - As-	• :		c toxicity studies were predominantly negative c toxicity studies were predominantly negativ					





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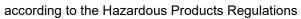
rsion	Revision Date: 11/16/2023		OS Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
Germ cell mutagenicity - As- sessment		:	In vitro genetic to: and positive in oth	xicity studies were negative in some cases ner cases.
Carcin	ogenicity			
Compo	onents:			
2,4-D 2	2-ethylhexyl ester:			
Carcin ment	ogenicity - Assess-	:	Did not cause car	ncer in laboratory animals.
fluroxy	/pyr-meptyl (ISO):			
Carcin ment	ogenicity - Assess-	:	For similar active cancer in laborate	ingredient(s)., Fluroxypyr., Did not cause ory animals.
hexan-	-1-ol:			
Carcin ment	ogenicity - Assess-	:	Did not cause car	ncer in animal skin painting studies.
Hydrod	carbons, C10, aromati	cs,	<1% naphthalene	:
Carcin ment	ogenicity - Assess-	:		lene which has caused cancer in some la- , However, the relevance of this to humans
2,4-D (ISO):			
Carcin ment	ogenicity - Assess-	:	toxicity studies. V positive association weight of evidence	nce of carcinogenicity in laboratory animal While some epidemiological studies report on between 2,4-D exposure and cancer, a e analysis of the epidemiology data across o indication that 2,4-D causes cancer in hu
naphth	nalene:			
Carcin ment	ogenicity - Assess-	:	Limited evidence	of carcinogenicity in animal studies
			there is limited ev	er in some laboratory animals., In humans, idence of cancer in workers involved in uction. Limited oral studies in rats were ne
Reproc	ductive toxicity			
Compo	onents:			
2,4-D 2	-ethylhexyl ester:			
	ductive toxicity - As-	:	is no evidence that	the fetus in laboratory animal tests., There at these findings are relevant to humans., I afects in laboratory animals.
fluroxy	/pyr-meptyl (ISO):			
Repro sessm	ductive toxicity - As- nent	:	Has been toxic to	did not interfere with reproduction. the fetus in laboratory animals at doses er., Did not cause birth defects in laboratory

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:



according to the Hazardous Products Regulations

rsion)	Revision Date: 11/16/2023		Number: 080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023			
Reproductive toxicity - As- sessment		I	 In animal studies, did not interfere with reproduction. For similar material(s):, Did not cause birth defects or any other fetal effects in laboratory animals. 				
Benze	nesulfonic acid, mon	o-C11	-13-branched	alkyl derivs., calcium salts:			
Repro sessn	oductive toxicity - As- nent	l I	eproduction. For similar mat	terial(s):, In animal studies, did not interfere with terial(s):, Did not cause birth defects or any cts in laboratory animals.			
hexan	-1-01						
	oductive toxicity - As-			es, did not interfere with reproduction. birth defects in laboratory animals.			
Hydro	carbons, C10, aromat	tics, <′	1% naphthale	ne:			
Repro sessn	oductive toxicity - As- nent		or similar mat	es, did not interfere with reproduction. terial(s):, Did not cause birth defects or any cts in laboratory animals.			
2,4-D ((ISO):						
Repro sessn	oductive toxicity - As- nent	r I t	nals caused d Has been toxic	nimals, excessive doses toxic to the parent ani- ecreased weight and survival of offspring. to the fetus in laboratory animals at doses ther., Did not cause birth defects in laboratory			
naphti	halene:						
Repro sessn	oductive toxicity - As- nent	(duction.	are inadequate to determine effects on repro- birth defects in laboratory animals.			
STOT	- single exposure						
Produ	ct:						
	sment	: 1	May cause dro	wsiness or dizziness.			
Comp	onents:		-				
Solver	nt nanhtha (netroleun	n) hea	vv arom · Kei	osine — unspecified:			
	sure routes		nhalation				
•	ssment			wsiness or dizziness.			
Benze	nesulfonic acid, mon	o-C11	-13-branched	alkyl derivs., calcium salts:			
Asses	ssment			are inadequate to determine single exposure organ toxicity.			
hexan	-1-ol:						
Targe	sure routes t Organs ssment	: (Oral Central nervou May cause dro	s system wsiness or dizziness.			
Hydro	carbons, C10, aromat	tics, <′	1% naphthale	ne:			
-	sure routes	: 1	nhalation	wsiness or dizziness.			





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2,4-D	(ISO):			
Expo	sure routes ssment		nhalation Iay cause res	spiratory irritation.
napht	halene:			
Asse	ssment			are inadequate to determine single exposure organ toxicity.
ѕтот	- repeated exposure			
<u>Produ</u>	<u>ict:</u>			
Asse	ssment		Evaluation of a	available data suggests that this material is not
Repea	ated dose toxicity	6		
<u>Comp</u>	onents:			
2,4-D	2-ethylhexyl ester:			
Rema	arks			lable data, repeated exposures are not antici- e additional significant adverse effects.
flurox	ypyr-meptyl (ISO):			
Rema	arks			lable data, repeated exposures are not antici- e significant adverse effects.
Solve	nt naphtha (petroleu	m), heav	vy arom.; Ke	rosine — unspecified:
Rema	arks			lable data, repeated exposures are not antici- e significant adverse effects.
Benze	enesulfonic acid, moi	10-C11-	13-branched	alkyl derivs., calcium salts:
Rema		: F II g	or similar ma	-
hexan	i-1-ol:			
Rema	arks	g	n animals, eff jans: Gastrointestin	ects have been reported on the following or- al tract.
Hydro	carbons, C10, aroma	atics, <1	% naphthale	ene:
Rema		: E	Based on avai	lable data, repeated exposures are not antici- e additional significant adverse effects.
2,4-D	(ISO):			
Rema	. ,	g L K C N C C	ans: .iver. (idney. Gastrointestin Auscles.	in animals include:



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naphth		: Observations ir	n animals include:
Remarks		Respiratory effe Excessive expo the blood's abil Cataracts and o mans repeated	

Aspiration toxicity

Product:

May be fatal if swallowed and enters airways.

Components:

2,4-D 2-ethylhexyl ester:

Based on available information, aspiration hazard could not be determined.

fluroxypyr-meptyl (ISO):

Based on physical properties, not likely to be an aspiration hazard.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified: May be fatal if swallowed and enters airways.

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Based on physical properties, not likely to be an aspiration hazard.

hexan-1-ol:

May be harmful if swallowed and enters airways.

Hydrocarbons, C10, aromatics, <1% naphthalene:

May be fatal if swallowed and enters airways.

2,4-D (ISO):

Based on physical properties, not likely to be an aspiration hazard.

naphthalene:

Based on physical properties, not likely to be an aspiration hazard.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

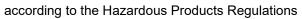
Components:

2,4-D 2-ethylhexyl ester:

Toxicity to fish

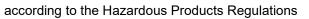
: Remarks: Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50 (tidewater silverside (Menidia beryllina)): > 1.9 mg/l Exposure time: 96 h Test Type: flow-through test Method: OECD Test Guideline 203 or Equivalent



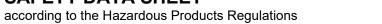


Version 2.0	Revision Date: 11/16/2023		0S Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023			
	icity to daphnia and other atic invertebrates	:	: EC50 (Daphnia magna (Water flea)): > 5 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 or Equivalent				
plar Tox aqu	icity to algae/aquatic its icity to daphnia and other atic invertebrates ronic toxicity)	:	End point: Biomas Exposure time: 5 Test Type: static t Method: OECD To	d test est Guideline 201 or Equivalent magna (Water flea)): 0.015 mg/l 1 d			
Tox ism:	icity to terrestrial organ- s	:	(LD50 between 50 non-toxic to birds	Il is slightly toxic to birds on an acute basis 01 and 2000 mg/kg)., Material is practically on a dietary basis (LC50 > 5000 ppm). blatyrhynchos (Mallard duck)): 663 mg/kg			
			bodyweight.	as platyrhynchos (Mallard duck)): > 5620			
			oral LD50 (Apis m	nellifera (bees)): > 100 micrograms/bee			
			contact LD50 (Ap	is mellifera (bees)): > 100 micrograms/bee			
	te aquatic toxicity	:	Very toxic to aqua	atic life.			
Chr	onic aquatic toxicity	:	Very toxic to aqua	atic life with long lasting effects.			
	oxypyr-meptyl (ISO): icity to fish	:		Il is very highly toxic to aquatic organisms on C50/EC50 <0.1 mg/L in the most sensitive			
			Exposure time: 96 Test Type: semi-s				
	icity to daphnia and other atic invertebrates	:	Exposure time: 48 Test Type: semi-s				
Tox plar	icity to algae/aquatic Its	:	Exposure time: 72 Test Type: static t				





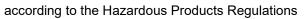
Versior 2.0	n	Revision Date: 11/16/2023		0S Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
				EbC50 (alga Scer Exposure time: 72	nedesmus sp.): > 0.47 mg/l 2 h
				ErC50 (Selenastri mg/l Exposure time: 96	um capricornutum (green algae)): > 1.410 6 h
				Exposure time: 14	lum spicatum): 0.031 mg/l
		to fish (Chronic tox-	:	NOEC (Rainbow	trout (Oncorhynchus mykiss)): 0.32 mg/l
Тс	-	to soil dwelling or-	:	LC50 (Eisenia feti	ida (earthworms)): > 1,000 mg/kg
Ťc	ganisms Toxicity to terrestrial isms	s to terrestrial organ-	:	basis (LD50 > 200	Il is practically non-toxic to birds on an acute 00 mg/kg)., Material is practically non-toxic to basis (LC50 > 5000 ppm).
				oral LD50 (Colinu mg/kg bodyweigh Exposure time: 5	
				dietary LC50 (Col mg/kg diet.	inus virginianus (Bobwhite quail)): > 5000
				oral LD50 (Apis m Exposure time: 48	nellifera (bees)): > 100 micrograms/bee 3 h
				contact LD50 (Ap Exposure time: 48	is mellifera (bees)): > 100 micrograms/bee 3 h
So	lvent	naphtha (petroleum)	, he	avy arom.; Keros	ine — unspecified:
Тс	oxicity	to fish	:		ately toxic to aquatic organisms on an acute D between 1 and 10 mg/L in the most sensi-
				LC50 (Oncorhync Exposure time: 96 Remarks: For sim	
		to daphnia and other invertebrates	:	EC50 (Daphnia m Exposure time: 48 Remarks: For sim	
	oxicity ants	to algae/aquatic	:	EC50 (Pseudokiro Exposure time: 72 Remarks: For sim	
	oxicity ms	to terrestrial organ-	:	Remarks: Materia basis (LD50 > 200	ll is practically non-toxic to birds on an acute 00 mg/kg).





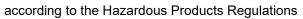
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Version 2.0	Revision Date: 11/16/2023		9S Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
Ecoto	oxicology Assessment			
	nic aquatic toxicity	:	Toxic to aquation	c life with long lasting effects.
Benze	enesulfonic acid, mono	-C1	1-13-branched	alkyl derivs., calcium salts:
Toxic	sity to fish	:	acute basis (LC	rial is slightly toxic to aquatic organisms on ar 50/EC50 between 10 and 100 mg/L in the species tested).
			Exposure time:	h (Brachydanio rerio)): 31.6 mg/l 96 h imilar material(s):
	tity to daphnia and other tic invertebrates	:	EC50 (Daphnia Exposure time:	magna (Water flea)): 62 mg/l 48 h
Toxic plant	sity to algae/aquatic s	:	End point: Grov Exposure time:	strum capricornutum (green algae)): 29 mg/l vth rate inhibition 96 h imilar material(s):
Toxic icity)	sity to fish (Chronic tox-	:	End point: surv Exposure time:	
aqua	bity to daphnia and other tic invertebrates pnic toxicity)	:	End point: num Exposure time:	
Toxic	sity to microorganisms	:	End point: Res Exposure time:	
	1-1-ol:			
Toxic	bity to fish	:	LC50 (Pimepha Exposure time: Test Type: flow Method: Other	-through test
	tity to daphnia and other tic invertebrates	:	Exposure time: Test Type: stat	
Toxic plant	city to algae/aquatic s	:	mg/l End point: Grov Exposure time: Test Type: stat	





Version 2.0	Revision Date: 11/16/2023		0S Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
Toxic	to microorganisms	:	EC50 (Protozoa): Exposure time: 48	
Hydro	ocarbons, C10, aromati	cs,	<1% naphthalene:	:
Toxic	sity to fish	:	LC50 (Oncorhync Exposure time: 96 Remarks: For sim	
	tity to daphnia and other tic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Remarks: For sim	
Toxic plant	sity to algae/aquatic s	:	EC50 (Pseudokiro Exposure time: 72 Remarks: For sim	
Ecoto	xicology Assessment			
Chro	nic aquatic toxicity	:	Toxic to aquatic li	fe with long lasting effects.
2,4-D	(ISO):			
Τοχία	sity to fish	:	LC50 (Pimephale mg/l Exposure time: 96 Test Type: static t	
			LC50 (Poecilia re Exposure time: 96 Test Type: static t	
	tity to daphnia and other tic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Test Type: static t	
			LC50 (stonefly Pt Exposure time: 96 Test Type: static t	
Toxic plant	sity to algae/aquatic s	:	EC50 (Pseudokiro mg/l Exposure time: 96	chneriella subcapitata (green algae)): 24.2 6 h
			EC50 (Lemna gib Exposure time: 14	
			ErC50 (Myriophyl Exposure time: 14	lum spicatum): 0.373 mg/l 4 d
			NOEC (Myriophyl Exposure time: 14	lum spicatum): 0.0305 mg/l 4 d
Toxic icity)	to fish (Chronic tox-	:	NOEC (Pimephale End point: growth Exposure time: 32	



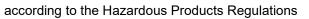


Version 2.0	Revision Date: 11/16/2023		OS Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
			End point: growth Exposure time: 32 MATC (Maximum promelas (fathead	2 d Acceptable Toxicant Level) (Pimephales d minnow)): 80 mg/l
aquat	ity to daphnia and other ic invertebrates nic toxicity)	:	End point: growth Exposure time: 32 NOEC (Daphnia r End point: numbe Exposure time: 21	2 d nagna (Water flea)): 46.2 mg/l r of offspring
Toxici ganisi	ity to soil dwelling or- ms	:	LC50 (Eisenia fet Exposure time: 48	ida (earthworms)): 0.0616 mg/cm2 3 d
			NOEC (Eisenia fe Exposure time: 56 End point: Other Method: Other gu GLP: yes	
Toxici isms	ity to terrestrial organ-	:	dietary LC50 (Col mg/kg diet.	inus virginianus (Bobwhite quail)): > 5620
			oral LD50 (Anas p bodyweight.	olatyrhynchos (Mallard duck)): > 500 mg/kg
			oral LD50 (Apis m	nellifera (bees)): 94 micrograms/bee
-	h alene: ity to fish	:		Il is highly toxic to aquatic organisms on an D/EC50 between 0.1 and 1 mg/L in the most tested).
			LC50 (Oncorhync Exposure time: 96	hus mykiss (rainbow trout)): 0.11 mg/l ን h
	ity to daphnia and other ic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Test Type: static t	
Toxici plants	ity to algae/aquatic	:	ErC50 (Skeletone Exposure time: 72 Test Type: Growt	
	ctor (Acute aquatic tox-	:	1	
icity) Toxici icity)	ity to fish (Chronic tox-	:	NOEC (Other): 0. End point: mortali Exposure time: 40 Test Type: flow-th	ty) d



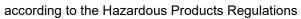
according to the Hazardous Products Regulations

ersion .0	Revision Date: 11/16/2023		0S Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
M-Fac toxicit	ctor (Chronic aquatic y)	:	1	
Ecoto	kicology Assessment			
	ic aquatic toxicity	:	Very toxic to aqua	atic life with long lasting effects.
Persis	tence and degradabilit	y		
Comp	onents:			
2,4-D 2	2-ethylhexyl ester:			
Biode	gradability	:	is below detectabl	radation under aerobic laboratory conditions le limits (BOD20 or BOD28/ThOD < 2.5%). ay occur under aerobic conditions (in the en).
			Result: Not biodeg Biodegradation: 7 Exposure time: 29 Method: OECD Te Remarks: 10-day	77 % 9 d est Guideline 301B or Equivalent
	emical Oxygen De- (BOD)	:	0.84 % Incubation time: 5	d
			0.92 % Incubation time: 1	0 d
			1.32 % Incubation time: 2	0 d
fluroxy	ypyr-meptyl (ISO):			
Biode	gradability	:	Result: Not biodeg Remarks: Materia OECD/EEC guide	I is not readily biodegradable according to
			Biodegradation: 3 Exposure time: 28 Method: OECD Te Remarks: 10-day	3 d est Guideline 301D or Equivalent
ThOD		:	2.2 kg/kg	
Stabili	ity in water	:	Test Type: Hydrol Degradation half l	
Solver	nt naphtha (petroleum)	, he	avy arom.; Keros	ine — unspecified:
Biode	gradability	:		y biodegradable I is inherently biodegradable (reaches > on in OECD test(s) for inherent biodegrada-
Benze	nesulfonic acid, mono	-C1	1-13-branched alk	yl derivs., calcium salts:
	gradability	:	Biodegradation: 2 Exposure time: 28	2.9 %



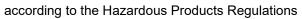


Version 2.0	Revision Date: 11/16/2023		DS Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
			Method: OECD T Remarks: 10-day	est Guideline 301E or Equivalent Window: Fail
hexan	ı-1-ol:		,	
Biode	Biodegradability		test(s) for ready b Concentration: 2 Biodegradation: 0 Exposure time: 30	al is readily biodegradable. Passes OECD biodegradability. mg/l 61 % 0 d est Guideline 301D or Equivalent
Hydro	ocarbons, C10, aromati	ics,	Remarks: 10-day	77 [°] % 0 d est Guideline 301D or Equivalent Window: Pass
Biode	egradability	:		al is inherently biodegradable (reaches > ion in OECD test(s) for inherent biodegrada-
2,4-D	(ISO):		5,	
Biode	egradability	:	Remarks: Materia test(s) for ready b	al is readily biodegradable. Passes OECD biodegradability.
	emical Oxygen De- I (BOD)	:	65 % Incubation time: 5	5 d
			66 % Incubation time: 1	10 d
			85 % Incubation time: 2	20 d
Chen (COD	nical Oxygen Demand	:	1.09 kg/kg	
	Íty in water	:	Degradation half	life (half-life): 2 - 4 d pH: 5
Photo	odegradation	:		
napht	halene:			
Biode	egradability	:		radation under aerobic static laboratory con- DD20 or BOD28/ThOD > 40%).
	emical Oxygen De- I (BOD)	:	57.000 % Incubation time: 5	5 d
			71.000 % Incubation time: 1	10 d
			71.000 % Incubation time: 2	20 d





rsion	Revision Date: 11/16/2023		0S Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
ThOD		:	3.00 kg/kg	
Photodegradation		:	Test Type: Half-life (indirect photolysis) Sensitiser: OH radicals Concentration: 1,500,000 1/cm3 Rate constant: 2.16E-11 cm3/s Method: Estimated.	
Bioaco	cumulative potential			
<u>Comp</u>	onents:			
2,4-D 2	2-ethylhexyl ester:			
Bioac	cumulation	:	Bioconcentratio	n factor (BCF): 10
Partiti tanol/\	on coefficient: n-oc- water	:	2,4-Dichlorophe	
fluroxy	/pyr-meptyl (ISO):			
Bioac	cumulation	:		nynchus mykiss (rainbow trout) n factor (BCF): 26 red
tanol/	on coefficient: n-oc- water	·	log Pow: 5.04 Method: Measu Remarks: Bioco Pow < 3).	red ncentration potential is low (BCF < 100 or L
Solver	nt naphtha (petroleu	m), he	avy arom.; Kerc	sine — unspecified:
Partiti tanol/\	on coefficient: n-oc- water	:		milar material(s): n potential is high (BCF > 3000 or Log Pow 7).
Benze	nesulfonic acid, mo	no-C1	1-13-branched a	lkyl derivs., calcium salts:
Partition tanol/\	on coefficient: n-oc- water	:	Remarks: Bioco	Test Guideline 107 or Equivalent ncentration potential is moderate (BCF be- 3000 or Log Pow between 3 and 5).
hexan	-1-ol:			
Partition tanol/\	on coefficient: n-oc- water	:	log Pow: 1.8 Method: Measu Remarks: Bioco Pow < 3).	red ncentration potential is low (BCF < 100 or L
Hydro	carbons, C10, aroma	atics, [,]	<1% naphthalen	e:
Partiti tanol/\	on coefficient: n-oc- water	:	For similar mate	n potential is high (BCF > 3000 or Log Pow





ersion .0	Revision Date: 11/16/2023		0S Number: 0080002725	Date of last issue: 01/25/2023 Date of first issue: 01/25/2023
Bioaccumulation		:	Species: Fish Bioconcentration Exposure time: 3	
Partitio tanol/w	on coefficient: n-oc- /ater	:	log Pow: -0.83 Method: Measure Remarks: Biocone Pow < 3).	d centration potential is low (BCF < 100 or Log
naphth	alene:			
-	umulation	:	Species: Fish Bioconcentration Exposure time: 28 Method: Measure	
Partitio tanol/w	on coefficient: n-oc- /ater	:		d centration potential is moderate (BCF be- 000 or Log Pow between 3 and 5).
Mobility	y in soil			
<u>Compo</u>	onents:			
2 4- D 2	-ethylhexyl ester:			
Distribu	compartments	:	possible due to ve For the degradation 2,4-Dichlorophene	
fluroxy	pyr-meptyl (ISO):			
Distribu	ution among environ- compartments	:	Koc: 6200 - 43000 Remarks: Expecte 5000).) ed to be relatively immobile in soil (Koc >
Solven	t naphtha (petroleum)), he	avy arom.; Keros	ine — unspecified:
Distribu	ution among environ- compartments	:		-
Benzen	nesulfonic acid, mono	-C1	1-13-branched all	yl derivs., calcium salts:
	ution among environ- compartments	:	Remarks: No rele	vant data found.
hexan-	1-ol:			
	ution among environ- compartments	:		al for mobility in soil is very high (Koc be-
Hydroc	arbons, C10, aromati	cs, ·	<1% naphthalene:	
	ution among environ- compartments	:	Remarks: No rele	vant data found.
2,4-D (I	SO):			
	ution among environ- compartments	:	Koc: 5 - 212 Method: Measure	d



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			Remarks: Potentia tween 0 and 50).	al for mobility in soil is very high (Koc be-
Stability	' in soil	:	Test Type: Photol Dissipation time: 6 Method: Estimate Test Type: aerobi Dissipation time: 7 Method: Measure Test Type: anaero Dissipation time: 6 Method: Measure	58 d d. c degradation 1.7 - 4 d d obic degradation 66.2 d
naphtha	lene:			
	tion among environ- compartments	:	Koc: 240 - 1300 Method: Measure Remarks: Potentia 150 and 500).	d al for mobility in soil is medium (Koc between
Other ac	lverse effects			
<u>Compor</u>	nents:			
2,4-D 2-0	ethylhexyl ester:			
	of PBT and vPvB as-	:	lating and toxic (P	not considered to be persistent, bioaccumu- BT). This substance is not considered to be d very bioaccumulating (vPvB).
Ozone-	Depletion Potential	:		bstance is not on the Montreal Protocol list t deplete the ozone layer.
fluroxyp	yr-meptyl (ISO):			
Results sessme	of PBT and vPvB as- nt	:	lating and toxic (P	not considered to be persistent, bioaccumu- BT). This substance is not considered to be d very bioaccumulating (vPvB).
Ozone-	Depletion Potential	:		bstance is not on the Montreal Protocol list t deplete the ozone layer.
	naphtha (petroleum)	-	avy arom.; Keros	ine — unspecified:
Results sessme	of PBT and vPvB as- nt	:	lating and toxic (P	not considered to be persistent, bioaccumu- BT). This substance is not considered to be d very bioaccumulating (vPvB).
Ozone-	Depletion Potential	:		bstance is not on the Montreal Protocol list t deplete the ozone layer.
Benzene	esulfonic acid, mono	-C1	1-13-branched alk	yl derivs., calcium salts:
Results sessme	of PBT and vPvB as- nt	:	lating and toxic (P	not considered to be persistent, bioaccumu- BT). This substance is not considered to be d very bioaccumulating (vPvB).
Ozone-	Depletion Potential	:		bstance is not on the Montreal Protocol list t deplete the ozone layer.
hexan-1	-ol:			



according to the Hazardous Products Regulations

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	Results sessme	of PBT and vPvB as- ent	:	This substance ha	is not been assessed for persistence, bioac- xicity (PBT).
	Ozone-	Depletion Potential	:		ostance is not on the Montreal Protocol list t deplete the ozone layer.
H	Hydroca	arbons, C10, aromatio	cs, •	<1% naphthalene:	
	Results sessme	of PBT and vPvB as- ent	:	lating and toxic (P	not considered to be persistent, bioaccumu- BT). This substance is not considered to be d very bioaccumulating (vPvB).
	Ozone-	Depletion Potential	:		ostance is not on the Montreal Protocol list t deplete the ozone layer.
2	2,4-D (IS	SO):			
	Results sessme	of PBT and vPvB as- ent	:	lating and toxic (P	not considered to be persistent, bioaccumu- BT). This substance is not considered to be d very bioaccumulating (vPvB).
	Ozone-	Depletion Potential	:		ostance is not on the Montreal Protocol list t deplete the ozone layer.
r	naphtha	alene:			
	Results sessme	of PBT and vPvB as- ent	:	This substance ha	s not been assessed for persistence, bioac- xicity (PBT).
	Ozone-	Depletion Potential	:		ostance is not on the Montreal Protocol list t deplete the ozone layer.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	5
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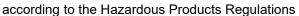
Waste from residues	: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or other- wise contaminated. It is the responsibility of the waste gener- ator to determine the toxicity and physical properties of the material generated to determine the proper waste identifica- tion and disposal methods in compliance with applicable regu- lations.
	If the material as supplied becomes a waste, follow all applica- ble regional, national and local laws.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG UN

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
	N.O.S.
	(2,4-D Ester, Fluroxypyr-meptyl)





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ersion 0	Revision Date: 11/16/2023	SDS Number:Date of last issue: 01/25/2023800080002725Date of first issue: 01/25/2023
Label	ng group	: 9 : III : 9 : no
) No. er shipping name	 UN 3082 Environmentally hazardous substance, liquid, n.o.s. (2,4-D Ester, Fluroxypyr-meptyl)
Label	ng group s ng instruction (cargo	: 9 : III : Miscellaneous : 964
Packi	ng instruction (passen- rcraft)	: 964
UN ni	i -Code umber er shipping name	 : UN 3082 : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUII N.O.S. (2.4.5) Extension for an analysis
Label EmS	ng group s Code e pollutant	 (2,4-D Ester, Fluroxypyr-meptyl) 9 III 9 F-A, S-F no Stowage category A

Not applicable for product as supplied.

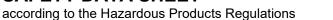
National Regulations

TDG UN number Proper shipping name	:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D Ester, Fluroxypyr-meptyl)
Class	:	9
Packing group	:	III
Labels	:	9
ERG Code	:	171
Marine pollutant	:	no

Further information

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

For Canadian Ground transportation TDG Exemption: 1.45.1 Marine Pollutants (Part 3, Documentation, and Part 4, Dangerous Goods Safety Marks, do not apply if they are in transport solely on land by road vehicle or railway vehicle).





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Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

The components of this product are reported in the following inventories:

DSL

: This product contains components that are not listed on the Canadian DSL nor NDSL.

Pest Control Products Act (PCPA) Registration Number : 30077

Read the PCPA label, authorized under the Pest Control Products Act, prior to using or handling this pest control product.

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act (PCPA). There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control products label:

PCPA Label Hazard Communications:

Read the label and booklet before using. Keep out of reach of children.

CAUTION POISON

SKIN IRRITANT

This product is toxic to: Non-target terrestrial plants Aquatic organisms

SECTION 16. OTHER INFORMATION

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table
		2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and
		safety, Schedule 1, Part 1: Permissible exposure values for
		airborne contaminants
Corteva OEL	:	Corteva Occupational Exposure Limit
Dow IHG	:	Dow Industrial Hygiene Guideline
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average

according to the Hazardous Products Regulations



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CA QC Cortev Cortev Dow IH Dow IH	: OEL / STEL COEL / TWAEV a OEL / STEL a OEL / TWA IG / TWA IG / STEL IG / TWA	: : : : : : : : : : : : : : : : : : : :	short-term expos Time-weighted av Short term expos Time weighted av Time Weighted A Short term expos Time weighted av	verage exposure value ure limit verage verage (TWA): ure limit

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM -American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - not otherwise specified; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN -United Nations.

DSL - Domestic substances List. WHMIS - Workplace Hazardous Materials Information System.

Revision Date	:	11/16/2023
Date format	:	mm/dd/yyyy

Product code: GF-182

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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