Version

5.4



Date of last issue: 23.03.2020

Date of first issue: 15.10.2014

Desogestrel Formulation

Revision Date:

16.10.2020

SDS Number:

21978-00019

Product name	:	Desogestrel Formulation
Manufacturer or supplier's d	letai	ils
Company name of supplier Address Telephone Emergency telephone	:	Organon & Co. Avenida 16 de Septiembre No. 301 Xaltocan - Xochimilco Mexico 16090 52 55 57284444 215-631-6999
E-mail address	:	EHSSTEWARD@organon.com
Recommended use of the ch	nem	ical and restrictions on use
Recommended use	:	Pharmaceutical
TION 2. HAZARDS IDENTIFIC	САТ	ION
GHS Classification		
Carcinogenicity (Inhalation)		Category 2
	•	
Reproductive toxicity	:	Category 1B
Specific target organ toxicity - repeated exposure	:	Category 1 (Pituitary gland, Uterus (including cervix), Ovary, Mammary gland, Prostate)
GHS label elements		
Hazard pictograms	:	
Signal Word	:	Danger
Hazard Statements	:	 H351 Suspected of causing cancer if inhaled. H360Fd May damage fertility. Suspected of damaging the unborn child. H372 Causes damage to organs (Pituitary gland, Uterus (including cervix), Ovary, Mammary gland, Prostate) through prolonged or repeated exposure.
Precautionary Statements	:	Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been rea and understood. P260 Do not breathe dust. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/ protective clothing/ eye protect face protection.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.



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Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin. May form explosive dust-air mixture during processing, handling or other means.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Titanium dioxide	13463-67-7	>= 0.1 -< 1
Desogestrel	54024-22-5	>= 0.1 -< 1

SECTION 4. FIRST AID MEASURES

General advice	:	In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	If in eyes, rinse well with water. Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	Suspected of causing cancer if inhaled. May damage fertility. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated
		exposure. Contact with dust can cause mechanical irritation or drying of the skin.
Protection of first-aiders	:	Dust contact with the eyes can lead to mechanical irritation. First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	:	Treat symptomatically and supportively.



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SECTION	5. FIRE-FIGHTING ME	121	RES	
	5. T INC-1 10111110 WIE/	-00		
Suitat	ble extinguishing media	:	Water spray Alcohol-resistant Carbon dioxide (Dry chemical	
Unsui media	table extinguishing	:	None known.	
Speci fightin	fic hazards during fire Ig	:	concentrations, a potential dust exp	dust; fine dust dispersed in air in sufficient and in the presence of an ignition source is a plosion hazard. bustion products may be a hazard to health.
Hazaı ucts	rdous combustion prod-	:	Carbon oxides Nitrogen oxides ((NOx)
Speci ods	Specific extinguishing meth- ods		cumstances and Use water spray	g measures that are appropriate to local cir- the surrounding environment. to cool unopened containers. aged containers from fire area if it is safe to d
	al protective equipment e-fighters	:		e, wear self-contained breathing apparatus. otective equipment.

Personal precautions, protec- : tive equipment and emer- gency procedures	Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
Environmental precautions :	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

- Technical measures
- : Static electricity may accumulate and ignite suspended dust



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	Total ventilation	 and bonding, of If sufficient ventilation. Do not get on s Do not breathe Do not swallow Avoid contact w Wash skin thore Handle in acco practice, based assessment Keep container Minimize dust of Keep away from Take precaution 	ate precautions, such as electrical grounding r inert atmospheres. tilation is unavailable, use with local exhaust skin or clothing. dust. r. vith eyes. oughly after handling. rdance with good industrial hygiene and safety I on the results of the workplace exposure
Hygier	ne measures	 Take care to pr environment. If exposure to o flushing system place. When using do Wash contamin The effective op engineering contaming 	revent spills, waste and minimize release to the chemical is likely during typical use, provide eye as and safety showers close to the working not eat, drink or smoke. nated clothing before re-use. peration of a facility should include review of ntrols, proper personal protective equipment,
	tions for safe storage als to avoid	industrial hygie use of administ : Keep in properl Store locked up Keep tightly clo Store in accord	ly labeled containers. b. sed. ance with the particular national regulations. th the following product types: g agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Titanium dioxide	13463-67-7	VLE-PPT	10 mg/m ³	NOM-010- STPS-2014
		TWA	10 mg/m ³ (Titanium dioxide)	ACGIH
Desogestrel	54024-22-5	TWA	0.04 µg/m3 (OEB 5)	Internal

Ingredients with workplace control parameters



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			Wipe limit	0.4 µg/100 cm²	Internal	
Eng	gineering measures	to control at prevent leak All engineer design and protect prod No open ha Totally enclo are required Operations	source (e.g., gli age of compoun- ing controls sho operated in accounces, workers, a ndling permitted osed processes l. require the use designed to prev	ems or containment to ove boxes/isolators) a nds into the workplace ould be implemented b ordance with GMP pri and the environment. and materials transpo of appropriate contair vent leakage of comp	and to e. by facility nciples to ort systems	
Per	sonal protective equipm	nent				
I	piratory protection Filter type nd protection	exposure as	sessment demo ed guidelines, u	entilation is not availal onstrates exposures o se respiratory protect	outside the	
r	Material	: Chemical-re	sistant gloves			
	Remarks protection	: Wear safety If the work e mists or aer Wear a face	environment or a osols, wear the shield or other f	de shields or goggles activity involves dusty appropriate goggles. full face protection if the pothe face with dusts,	conditions, here is a	
Skir	n and body protection	: Work uniforu Additional b task being p disposable s	erformed (e.g., suits) to avoid ex riate degowning	coat. hould be used based sleevelets, apron, ga xposed skin surfaces. techniques to remov	untlets,	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Color	:	white
Odor	:	No data available
Odor Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available



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Flas	sh point	:	Not applicable	
Eva	poration rate	:	Not applicable	
Flar	nmability (solid, gas)	:	May form explos handling or other	ive dust-air mixture during processing, r means.
Flar	nmability (liquids)	:	No data available	9
	er explosion limit / Upper mability limit	:	No data available	e
	ver explosion limit / Lower amability limit	:	No data available	e
Vap	or pressure	:	Not applicable	
Rela	ative vapor density	:	Not applicable	
Rela	ative density	:	No data available	9
Den	sity	:	No data available	9
	ubility(ies) Vater solubility	:	No data available	e
	tition coefficient: n- anol/water	:	Not applicable	
	pignition temperature	:	No data available	9
Dec	omposition temperature	:	No data available	9
	cosity /iscosity, kinematic	:	Not applicable	
Exp	losive properties	:	Not explosive	
Oxio	dizing properties	:	The substance o	r mixture is not classified as oxidizing.
Part	ticle size	:	No data available	e

SECTION 10. STABILITY AND REACTIVITY

Reactivity Chemical stability Possibility of hazardous reac- tions	:	Not classified as a reactivity hazard. Stable under normal conditions. May form explosive dust-air mixture during processing, handling or other means. Can react with strong oxidizing agents.
Conditions to avoid	:	Heat, flames and sparks. Avoid dust formation.
Incompatible materials Hazardous decomposition	:	Oxidizing agents



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produ	cts		
CTION	11. TOXICOLOGICA	L INFORMATIO	N
Inhala Skin o Inges	contact	es of exposure	
	e toxicity assified based on ava	ailable informatio	n.
<u>Com</u>	oonents:		
Titan	ium dioxide:		
Acute	oral toxicity	: LD50 (Ra	at): > 5,000 mg/kg
Acute	inhalation toxicity	Exposure Test atm	at): > 6.82 mg/l e time: 4 h osphere: dust/mist ent: The substance or mixture has no acute inhala ity
Deso	gestrel:		
Acute	oral toxicity	: LD50 (Ra	at, male and female): > 2,000 mg/kg
		LD50 (Mo	puse, male and female): > 2,000 mg/kg
-	corrosion/irritation assified based on ava	ailable informatio	n.
<u>Com</u>	oonents:		
Titan Speci Resul		: Rabbit : No skin ii	ritation
	us eye damage/eye assified based on ava		n.
<u>Com</u>	oonents:		
Titan	ium dioxide:		
Speci Resul		: Rabbit : No eye ir	ritation
Resp	iratory or skin sensi	tization	
Skin	sensitization		



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sion	Revision Date: 16.10.2020		OS Number: 978-00019	Date of last issue: 23.03.2020 Date of first issue: 15.10.2014
Respi	iratory sensitization			
-	assified based on ava		information.	
Comp	oonents:			
	um dioxide:			
Test T			Local lymph noc	
	s of exposure	:	Skin contact	
Specie		:	Mouse	
Resul	t	:	negative	
	cell mutagenicity			
Not cl	assified based on ava	ailable	information.	
<u>Comp</u>	oonents:			
Titani	um dioxide:			
Genot	toxicity in vitro	:	Test Type: Bactor Result: negative	erial reverse mutation assay (AMES)
Genot	toxicity in vivo	:	Test Type: In viv	o micronucleus test
			Species: Mouse	
			Result: negative	
Deso	gestrel:			
Genot	toxicity in vitro	:	Test Type: Bactor Result: negative	erial reverse mutation assay (AMES)
Genot	toxicity in vivo	:	Test Type: Micro	onucleus test
			Species: Rat	e: Intraperitoneal
			Result: negative	
Carci	nogenicity			
	ected of causing canc	er if in	haled.	
	oonents:			
	um dioxide:			
Specie		:	Rat	
Applic	ation Route	:	inhalation (dust/	mist/fume)
	sure time	:	2 Years OECD Test Guid	doline 452
Metho Result			positive	Jeillie 400
Rema		:		or mode of action may not be relevant in h
			mans.	,
	nogenicity - Assess-	:		e of carcinogenicity in inhalation studies wit
ment			animals.	
	gestrel:			
Specie	es ation Route	:	Rat	
			Oral	



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	Exposu Result	re time	:	104 weeks negative	
		s tion Route re time	:	Mouse Oral 81 weeks negative	
	-	luctive toxicity mage fertility. Suspect	ed c	of damaging the un	born child.
	Compo	onents:			
	Desoge Effects	estrel: on fertility	:	Species: Rabbit, f	arent: 2 mg/kg body weight
				Species: Rat, fem	arent: 0.5 mg/kg body weight
	Effects	on fetal development	:	Species: Rabbit, f Application Route Developmental To Result: Embryotox	
				Species: Rat, fem Application Route	: Oral ity.: LOAEC Parent: 0.125 mg/kg body
	Reprod sessme	uctive toxicity - As- ent	:	fertility, based on	adverse effects on sexual function and animal experiments., Some evidence of a development, based on animal

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Causes damage to organs (Pituitary gland, Uterus (including cervix), Ovary, Mammary gland, Prostate) through prolonged or repeated exposure.

Components:

Desogestrel:

Target Organs

: Pituitary gland, Uterus (including cervix), Ovary, Mammary gland, Prostate



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Asses	ssment	: Causes dama exposure.	age to organs through prolonged or repeated
Repe	ated dose toxicity		
<u>Com</u>	oonents:		
Titan	ium dioxide:		
		: Rat : 24,000 mg/kg : Ingestion : 28 Days)
		: Rat : 10 mg/m³ : inhalation (du : 2 y	ist/mist/fume)
Deso	gestrel:		
Expo		: Rat, female : 0.00625 mg/ł : Oral : 26 Weeks : Pituitary glan gland	kg d, Uterus (including cervix), Ovary, Mammary
Expo		: Rat : 0.005 mg/kg : Oral : 52 Weeks : Pituitary glan gland	d, Uterus (including cervix), Ovary, Mammary
Expo		: Dog : 0.005 mg/kg : Oral : 52 Weeks : Pituitary glan gland, Prosta	d, Uterus (including cervix), Ovary, Mammary te

Experience with human exposure

Components:

Desogestrel:

Ingestion

: Symptoms: Headache, changes in libido, Dizziness, Nausea, Vomiting, Diarrhea, water retention, sodium retention, Gastrointestinal discomfort, mental depression, amenorhea, insomnia, impaired glucose tolerance, pulmonary embolism Target Organs: Uterus (including cervix) Target Organs: Mammary gland



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SECT	CTION 12. ECOLOGICAL INFORMATION						
E	cotoxicity						
<u>c</u>	components:						
т	itanium dioxide:						
Т	oxicity to fish	:	LC50 (Oncorhync Exposure time: 96 Method: OECD Te				
	oxicity to daphnia and othe quatic invertebrates	r:	EC50 (Daphnia m Exposure time: 48	agna (Water flea)): > 100 mg/l 3 h			
	oxicity to algae/aquatic lants	:	EC50 (Skeletoner Exposure time: 72	ma costatum (marine diatom)): > 10,000 mg/l 2 h			
Т	oxicity to microorganisms	:	EC50: > 1,000 mg Exposure time: 3 Method: OECD Te	ĥ			
D	esogestrel:						
Т	oxicity to fish	:	Exposure time: 96 Method: FDA 4.1				
			Exposure time: 96 Method: OECD To Remarks: No toxi				
	oxicity to daphnia and othe quatic invertebrates	r :	Exposure time: 48 Method: OECD To Remarks: No toxi				
	oxicity to fish (Chronic tox- city)	:	Exposure time: 32 Method: OECD Te				
			Exposure time: 18	atipes (Japanese medaka)): 0.0000027 mg/l 33 d on data from similar materials			
a	oxicity to daphnia and othe quatic invertebrates (Chron toxicity)		Exposure time: 27	nagna (Water flea)): 1.2 mg/l l d on data from similar materials			
Т	oxicity to microorganisms	:	EC50: > 1,000 mg Exposure time: 3				



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				ration inhibition est Guideline 209 on data from similar materials
			NOEC: 70.8 mg/l Exposure time: 3 Test Type: Respi Remarks: Based	h
Persi	istence and degradabi	lity		
Com	ponents:			
	gestrel:			
Stabi	lity in water	:	Hydrolysis: < 10 ° Remarks: Based	%(5 d) on data from similar materials
Bioa	ccumulative potential			
Com	ponents:			
Deso	gestrel:			
Bioac	ccumulation	:	Bioconcentration	s macrochirus (Bluegill sunfish) factor (BCF): 128 on data from similar materials
	ion coefficient: n- ol/water	:	log Pow: 3.5	
Mobi	lity in soil			
Com	ponents:			
Distri	gestrel: bution among environ- al compartments	:	log Koc: 2.84	
	r adverse effects ata available			

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues Contaminated packaging	 Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,



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	Class Packing Labels	g group	:	N.O.S. (Desogestrel) 9 III 9	
	Class Packing Labels Packing aircraft	No. shipping name g group g instruction (cargo	:	UN 3077 Environmentally h (Desogestrel) 9 III Miscellaneous 956 956	azardous substance, solid, n.o.s.
1	ger airc		:	yes	
	IMDG-(UN nur Proper		:	N.O.S.	ALLY HAZARDOUS SUBSTANCE, SOLID,
	Labels EmS C	g group ode pollutant	: : : : :	(Desogestrel) 9 III 9 F-A, S-F yes	

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

NOM-002-SCT UN number Proper shipping name	:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Desogestrel)
Class	:	9
Packing group	:	
Labels	:	9

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

Safety, health and environmental regulations/legislation specific for the substance or mixture

Federal Law for the control of chemical precursors, : Not applicable essential chemical products and machinery for producing capsules, tablets and pills.



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The in	avadianta of this pro-	4	t ava van avtad in th	a following inventories.
AICS	greatents of this proc			ne following inventories:
DSL		:	not determined	
IECSC	:	:	not determined	

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH NOM-010-STPS-2014	:	USA. ACGIH Threshold Limit Values (TLV) Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting
		the Work Environment - Identification, Assessment and Con- trol - Appendix 1 Occupational Exposure Limits
ACGIH / TWA	:	8-hour, time-weighted average
NOM-010-STPS-2014 / VLE- PPT	:	Time weighted average limit value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; 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; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Sources of key data used to : Internal technical data, data from raw material SDSs, OECD



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compile the Material Safety		eChem Portal search results and European Chemicals Agen-	
Data Sheet		cy, http://echa.europa.eu/	
Revision Date		: 16.10.2020	

The information is considered as correct, but not exhaustive, and will be used only as a guide, which is based in the current knowledge of the substance or mixture, and is applicable to proper safety precautions for the product.

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