### SAFETY DATA SHEET



## **Cloprostenol Formulation**

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1. PRODUCT AND COMPANY IDENTIFICATION							

Product name	:	Cloprostenol Formulation
Other means of identification	:	ESTRUMATE® (A002698) ESTRUMATE SYNTHETIC PROSTAGLANDIN FOR CATTLE AND HORSES (36076)

#### Manufacturer or supplier's details

Company	:	MSD				
Address	:	126 E. Lincoln Avenue Rahway, New Jersey U.S.A. 07065				
Telephone	:	908-740-4000				
Emergency telephone number	:	1-908-423-6000				
E-mail address	:	EHSDATASTEWARD@msd.com				
Recommended use of the chemical and restrictions on use						

Recommended use	:	Veterinary product
Restrictions on use	:	Not applicable

#### 2. HAZARDS IDENTIFICATION

#### **GHS Classification**

Not a hazardous substance or mixture.

#### **GHS** label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

#### Other hazards which do not result in classification

None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
Benzyl alcohol	100-51-6	< 10
Sodium [1α(Z),2β(1E,3R*),3α,5α]-(+/-)-7-[2-[4- (3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5- dihydroxycyclopentyl]hept-5-enoate	55028-72-3	< 0.3



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4. FIRST AID MEASURES		
If inhaled	:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact :		Wash with water and soap as a precaution. Get medical attention if symptoms occur.
In case of eye contact	:	Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	None known.
Protection of first-aiders Notes to physician	:	No special precautions are necessary for first aid responders. Treat symptomatically and supportively.
5. FIREFIGHTING MEASURES		
Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	None known.
Specific hazards during fire- fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion prod- ucts	:	Carbon oxides
Specific extinguishing meth- ods	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do
		so. Evacuate area.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if nec- essary. Use personal protective equipment.
6. ACCIDENTAL RELEASE MEAS	SUF	
Personal precautions, protec- tive equipment and emer- gency procedures	:	Follow safe handling advice (see section 7) and personal pro- tective equipment recommendations (see section 8).
Environmental precautions	:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water.



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	Methods and materials for : S containment and cleaning up I I I I I I I I I I I I I I I I I I I		Local authorities should be advised if significant spillages cannot be contained. Soak up with inert absorbent material. For large spills, provide dyking or other appropriate contain- ment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absor- bent. Local or national regulations may apply to releases and dis- posal of this material, as well as those materials and items employed in the cleanup of releases. You will need to deter- mine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.				
7. HA		NG AND STORAGE					
	Local/T	cal measures otal ventilation on safe handling	:	CONTROLS/PER Use only with ade Handle in accorda practice, based of sessment Take care to prev	measures under EXPOSURE SONAL PROTECTION section. equate ventilation. ance with good industrial hygiene and safety in the results of the workplace exposure as- ent spills, waste and minimize release to the		
		ons for safe storage als to avoid	:	<ul> <li>Fake care to prevent spills, waste and minimize release to t environment.</li> <li>Keep in properly labelled containers. Store in accordance with the particular national regulations.</li> <li>Do not store with the following product types: Strong oxidizing agents</li> </ul>			

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis	
Sodium [1α(Z),2β(1E,3R*),3α,5α]-(+/-)- 7-[2-[4-(3-chlorophenoxy)-3- hydroxybut-1-enyl]-3,5- dihydroxycyclopentyl]hept-5- enoate	55028-72-3	TWA	0.01 ug/m3 (OEB 5)	Internal	
	Further information: RSEN, Skin				
		Wipe limit	0.1 ug/100 cm2	Internal	

#### Engineering measures

: Use closed processing systems or containment technologies to control at source (e.g., glove boxes/isolators) and to prevent leakage of compounds into the workplace.



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		design a protect p No open Totally e are requ Operatio	ns require the use of appropriate containment tech- esigned to prevent leakage of compounds into the
Perso	onal protective equip	nent	
Fil	iratory protection Iter type protection	sure ass ommend	ate local exhaust ventilation is not available or expo- essment demonstrates exposures outside the rec- led guidelines, use respiratory protection. vapour type
Ma	aterial	: Chemica	al-resistant gloves
	emarks protection	: Wear sa If the wo mists or Wear a f	r double gloving. fety glasses with side shields or goggles. rk environment or activity involves dusty conditions, aerosols, wear the appropriate goggles. aceshield or other full face protection if there is a for direct contact to the face with dusts, mists, or
Skin a	and body protection	: Work un Addition task beir posable Use app	iform or laboratory coat. al body garments should be used based upon the ng performed (e.g., sleevelets, apron, gauntlets, dis- suits) to avoid exposed skin surfaces. ropriate degowning techniques to remove potentially nated clothing.
Hygie	ene measures	: If expose eye flush ing place When us Wash co The effe enginee appropri industria	ure to chemical is likely during typical use, provide ning systems and safety showers close to the work-

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Aqueous solution
Colour	:	clear
Odour	:	No data available
Odour Threshold	:	No data available

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	рН		:	5.6 - 6.1 (20 - 25	°C)		
	Melting	point/freezing point	:	No data available	9		
	Initial b range	oiling point and boiling	:	No data available	9		
	Flash p	oint	:	No data available	9		
	Evapor	ation rate	:	No data available	9		
	Flamma	ability (solid, gas)	:	Not applicable			
	Flamma	ability (liquids)	:	No data available	9		
		explosion limit / Upper bility limit	:	No data available	9		
		explosion limit / Lower bility limit	:	No data available	9		
	Vapour	pressure	:	No data available	9		
	Relative	e vapour density	:	No data available	9		
	Relative	e density	:	1			
	Density	,	:	No data available	9		
	Solubili Wat	ty(ies) er solubility	:	soluble			
	Partition octanol	n coefficient: n-	:	Not applicable			
		nition temperature	:	No data available	9		
	Decom	position temperature	:	No data available	9		
	Viscosi Visc	ty osity, kinematic	:	No data available	9		
	Explosi	ve properties	:	Not explosive			
	Oxidizir	ng properties	:	The substance o	r mixture is not classified as oxidizing.		
	Molecu	lar weight	:	No data available	9		
	Particle	size	:	Not applicable			



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#### **10. STABILITY AND REACTIVITY**

Reactivity Chemical stability Possibility of hazardous reac- tions	:	Not classified as a reactivity hazard. Stable under normal conditions. Can react with strong oxidizing agents.
Conditions to avoid Incompatible materials Hazardous decomposition products		None known. Oxidizing agents No hazardous decomposition products are known.

#### **11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure	Inhalation Skin contact Ingestion Eye contact			
Acute toxicity				
Not classified based on availabl	e information.			
Product:				
Acute oral toxicity :	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method			
Acute inhalation toxicity :	Acute toxicity estimate: > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method			
Components:				
Benzyl alcohol:				
Acute oral toxicity	LD50 (Rat): 1,620 mg/kg			
Acute inhalation toxicity :	LC50 (Rat): > 4.178 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403			
Sodium [1α(Z),2β(1E,3R*),3α,5α]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5- dihydroxycyclopentyl]hept-5-enoate:				
Acute oral toxicity :	LD50 (Rat): > 25 mg/kg Remarks: No mortality observed at this dose.			
Acute toxicity (other routes of administration)	LD50 (Rat): > 50 mg/kg Application Route: Subcutaneous			
	LD50 (Rat): > 50 mg/kg			

LD50 (Rat): > 50 mg/kg Application Route: Intramuscular



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		LD50 (Mouse): 3 Application Rout LD50 (Mouse): 5 Application Rout TDLo (Monkey): Application Rout Target Organs: I	e: Intravenous ortality observed at this dose. 350 mg/kg e: Intramuscular 54.7 mg/kg e: Intravenous 0.0025 - 0.025 mg/kg e: Intramuscular _ungs
		TDLo (Monkey):	e: Intramuscular

#### Skin corrosion/irritation

Not classified based on available information.

#### Components:

#### Benzyl alcohol:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

# Sodium $[1\alpha(Z), 2\beta(1E, 3R^*), 3\alpha, 5\alpha]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3, 5-dihydroxycyclopentyl]hept-5-enoate:$

Remarks	
Remarks	

: Not classified due to lack of data. Can be absorbed through skin.

#### Serious eye damage/eye irritation

Not classified based on available information.

#### Components:

#### Benzyl alcohol:

Species	:	Rabbit
Result		Irritation to eyes, reversing within 21 days
Method	:	OECD Test Guideline 405

# Sodium $[1\alpha(Z), 2\beta(1E, 3R^*), 3\alpha, 5\alpha]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3, 5-dihydroxycyclopentyl]hept-5-enoate:$



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#### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### Respiratory sensitisation

Not classified based on available information.

#### **Components:**

#### Benzyl alcohol:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

# Sodium $[1\alpha(Z), 2\beta(1E, 3R^*), 3\alpha, 5\alpha]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3, 5-dihydroxycyclopentyl]hept-5-enoate:$

Result	Sensitiser
Result	Sensiliser

#### Germ cell mutagenicity

Not classified based on available information.

#### Components:

# Benzyl alcohol:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo	:	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Result: negative

# Sodium $[1\alpha(Z), 2\beta(1E, 3R^*), 3\alpha, 5\alpha]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3, 5-dihydroxycyclopentyl]hept-5-enoate:$

Genotoxicity in vitro :	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
	Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Result: negative
	Test Type: Chromosomal aberration Test system: Human lymphocytes Result: equivocal
Genotoxicity in vivo :	Test Type: Micronucleus test Species: Mouse



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Cell type: Bone marrow Application Route: Intraperitoneal Result: negative

#### Carcinogenicity

Not classified based on available information.

#### Components:

#### **Benzyl alcohol:**

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# Sodium $[1\alpha(Z),2\beta(1E,3R^*),3\alpha,5\alpha]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:$

Remarks

: Not classified due to lack of data.

#### Reproductive toxicity

Not classified based on available information.

#### Components:

#### Benzyl alcohol:

Effects on fertility	:	Test Type: Fertility/early embryonic development Species: Rat Application Route: Ingestion Result: negative Remarks: Based on data from similar materials
Effects on foetal develop- ment	:	Test Type: Embryo-foetal development Species: Mouse Application Route: Ingestion Result: negative

# Sodium $[1\alpha(Z), 2\beta(1E, 3R^*), 3\alpha, 5\alpha]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3, 5-dihydroxycyclopentyl]hept-5-enoate:$

Effects on fertility :	Test Type: Three-generation study Species: Rat Application Route: Oral General Toxicity F1: NOAEL: 0.015 mg/kg body weight Fertility: NOAEL: > 0.04 mg/kg body weight Result: Animal testing did not show any effects on fertility.
	Species: Cattle Application Route: Intramuscular General Toxicity - Parent: LOAEL: 0.16 µg/kg Result: positive



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		Remarks:	Abortion
Effects ment	s on foetal develop-	Species: Application Teratoger	e: Development Rabbit on Route: Subcutaneous nicity: NOAEL: 0.250 μg/kg o teratogenic effects
		Species: Application Teratoger	e: Development Rat on Route: Oral nicity: NOAEL: 100 μg/kg o teratogenic effects
Repro- sessm	ductive toxicity - As- ient	: May dam	age fertility.
	- single exposure		
	assified based on ava	ilable information	۱.
<u>Comp</u>	onents:		
	m [1α(Ζ),2β(1E,3R*) roxycyclopentyl]her		-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3
-	t Organs	: Lungs	amage to organs.
	- repeated exposure		ŋ.
INOT CIA			
	onents:		
<u>Comp</u> Sodiu			2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3
<u>Comp</u> Sodiu dihyd	m [1α(Ζ),2β(1E,3R*) roxycyclopentyl]her t Organs	ot-5-enoate: : Ovary	amage to organs through prolonged or repeated
Comp Sodiu dihyd Target Asses	m [1α(Ζ),2β(1E,3R*) roxycyclopentyl]her t Organs	ot-5-enoate: : Ovary : Causes d	amage to organs through prolonged or repeated
Comp Sodiu dihydu Target Asses Repea	<b>m [1α(Ζ),2β(1E,3R*)</b> <b>roxycyclopentyl]her</b> t Organs sment	ot-5-enoate: : Ovary : Causes d	amage to organs through prolonged or repeated
Comp Sodiu dihydr Target Asses Repea	m [1α(Z),2β(1E,3R*) roxycyclopentyl]her t Organs sment sment	ot-5-enoate: : Ovary : Causes d	amage to organs through prolonged or repeated

Species : Rat



Route ime ans Route ime ans		0.05 mg/kg 0.15 mg/kg Oral 3 Months Ovary Rat 0.0125 mg/kg Subcutaneous	
ime ans Route ime		0.15 mg/kg Oral 3 Months Ovary Rat 0.0125 mg/kg Subcutaneous	
ime	:	0.0125 mg/kg Subcutaneous	
		30 Days Ovary	
Route ime ans	:	Monkey 0.05 mg/kg 0.15 mg/kg Oral 3 Months Heart, Testis	
toxicity		<i>.</i> .	
	able i	nformation.	
			hlorophenoxy)-3-hydroxybut-1-enyl]-3,5-
ble			
e with human exp	oosu	re	
	<u>its:</u> α <b>(Ζ),2β(1E,3R*),3</b> cyclopentyl]hept ble	<u>its:</u> α(Z),2β(1E,3R*),3α,5α cyclopentyl]hept-5-en ble e with human exposu	α(Z),2β(1E,3R*),3α,5α]-(+/-)-7-[2-[4-(3-c cyclopentyl]hept-5-enoate: ble e with human exposure

30010111 [10(2),2p(1E,3R),30,30]-(+/-)-7-[2-[4-(3-011010p11e110Xy)-3-11y010Xybut-1-ei
dihydroxycyclopentyl]hept-5-enoate:

General Information :	Target Organs: Uterus (including cervix) Symptoms: Embryo-foetal toxicity, foetal mortality, menstrual irregularities, miscarriage Target Organs: Lungs Symptoms: Asthma, bronchospasm
Inhalation :	Target Organs: Lungs
	Symptoms: bronchospasm, Asthma
	Remarks: May cause sensitisation of susceptible persons by inhalation of aerosol or dust.
	Target Organs: Uterus (including cervix)
	Symptoms: Embryolethal effects, menstrual irregularities
Skin contact :	Target Organs: Lungs
	Symptoms: bronchospasm
	Remarks: Can be absorbed through skin.
	Target Organs: Uterus (including cervix)
	Symptoms: Embryolethal effects



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#### **12. ECOLOGICAL INFORMATION**

mephales promelas (fathead minnow)): 460 mg/l e time: 96 h aphnia magna (Water flea)): 230 mg/l e time: 48 h DECD Test Guideline 202
e time: 96 h aphnia magna (Water flea)): 230 mg/l e time: 48 h
e time: 96 h aphnia magna (Water flea)): 230 mg/l e time: 48 h
time: 48 h
JECD Test Guideline 202
seudokirchneriella subcapitata (green algae)): 770
e time: 72 h
OECD Test Guideline 201
seudokirchneriella subcapitata (green algae)): 310
e time: 72 h OECD Test Guideline 201
e time: 21 d
(

# Sodium $[1\alpha(Z), 2\beta(1E, 3R^*), 3\alpha, 5\alpha]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3, 5-dihydroxycyclopentyl]hept-5-enoate:$

Ecotoxicology Assessment Acute aquatic toxicity	:	Toxic effects cannot be excluded	
Chronic aquatic toxicity	:	Toxic effects cannot be excluded	
Persistence and degradability			
Components:			
<b>Benzyl alcohol:</b> Biodegradability	:	Result: Readily biodegradable. Biodegradation: 92 - 96 % Exposure time: 14 d	
Bioaccumulative potential			
Components:			

#### Benzyl alcohol:

Partition coefficient: n- : log Pow: 1.05



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octan	ol/water		
Mobi	lity in soil		
	ata available		
Othe	r adverse effects		
	ata available		
3. DISPC	SAL CONSIDERATIO	NS	
•	osal methods		
Wast	e from residues		e of waste into sewer. accordance with local regulations.
Conte	aminated packaging		ers should be taken to an approved waste han
Contaminated packaging		dling site for re	cycling or disposal.
		If not otherwise	e specified: Dispose of as unused product.
4. TRAN	SPORT INFORMATION	1	
		-	
Interi	national Regulations		
UNR	ſDG		
UN n	umber	: Not applicable	
	er shipping name	: Not applicable	
Class		: Not applicable	
Class Subsi	diary risk	: Not applicable : Not applicable	
Class Subsi Packi	diary risk ng group	<ul><li>Not applicable</li><li>Not applicable</li><li>Not applicable</li></ul>	
Class Subsi Packi Label	diary risk ng group s	: Not applicable : Not applicable	
Class Subsi Packi Label	diary risk ng group s - <b>DGR</b>	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE	diary risk ng group s <b>-DGR</b> ) No.	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE	diary risk ng group s <b>-DGR</b> 0 No. er shipping name	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>	
Class Subsi Packi Label <b>IATA</b> UN/IE Prope Class Subsi	diary risk ng group s - <b>DGR</b> O No. er shipping name diary risk	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi	diary risk ng group s -DGR D No. er shipping name diary risk ng group	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi Label	diary risk ng group s -DGR ) No. er shipping name diary risk ng group s	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi Label Packi	diary risk ng group s -DGR O No. er shipping name diary risk ng group s ng instruction (cargo	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi Label Packi aircra	diary risk ng group s -DGR O No. er shipping name diary risk ng group s ng instruction (cargo ft)	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi Label Packi aircra Packi	diary risk ng group s -DGR O No. er shipping name diary risk ng group s ng instruction (cargo	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi Label Packi aircra Packi ger ai	diary risk ng group s -DGR D No. er shipping name diary risk ng group s ng instruction (cargo ft) ng instruction (passen-	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi Label Packi aircra Packi ger ai	diary risk ng group s -DGR D No. er shipping name diary risk ng group s ng instruction (cargo ft) ng instruction (passen- rcraft)	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi Label Packi aircra Packi ger ai UN n	diary risk ng group s -DGR D No. er shipping name diary risk ng group s ng instruction (cargo ft) ng instruction (passen- rcraft) -Code	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi aircra Packi ger ai UN ni Prope Class	diary risk ng group s -DGR 0 No. er shipping name diary risk ng group s ng instruction (cargo ft) ng instruction (passen- rcraft) -Code umber er shipping name	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA UN/IE Prope Class Subsi Packi aircra Packi ger ai UN n Prope Class Subsi	diary risk ng group s -DGR D No. er shipping name diary risk ng group s ng instruction (cargo ft) ng instruction (passen- rcraft) -Code umber er shipping name diary risk	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA Prope Class Subsi Packi aircra Packi ger ai UN ni Prope Class Subsi Subsi Packi	diary risk ng group s -DGR D No. er shipping name diary risk ng group s ng instruction (cargo ft) ng instruction (passen- rcraft) G-Code umber er shipping name diary risk ng group	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label IATA Prope Class Subsi Packi aircra Packi ger ai IMDG UN m Prope Class Subsi Packi Label	diary risk ng group s -DGR D No. er shipping name diary risk ng group s ng instruction (cargo ft) ng instruction (passen- rcraft) <b>-Code</b> umber er shipping name diary risk ng group s	<ul> <li>Not applicable</li> </ul>	
Class Subsi Packi Label Prope Class Subsi Packi aircra Packi aircra Packi ger ai IMDG UN m Prope Class Subsi Packi Eass Subsi Packi	diary risk ng group s -DGR D No. er shipping name diary risk ng group s ng instruction (cargo ft) ng instruction (passen- rcraft) <b>-Code</b> umber er shipping name diary risk ng group s	<ul> <li>Not applicable</li> </ul>	

Not applicable for product as supplied.



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Special precautions for user

Not applicable

#### **15. REGULATORY INFORMATION**

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

Minister of Industry Regulation No. 23/M-IND/PER/4/2013 concerning the Revision of Minister of Industry Regulation No. 87/M-IND/PER/9/2009 concerning Globally Harmonized System of Classification and Labelling of Chemicals.

Regulation of the Minister of Health No. 472 of 1996 on the Safeguarding of Substances Hazardous to Health

Hazardous substances that must be registered	:	Not applicable
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#### Government Regulation No. 74 of 2001 on the Management of Hazardous and Toxic Substances

Hazardous substances approved for use	:	Not applicable
Prohibited substances	:	Not applicable
Restricted substances	:	Not applicable

# Regulation of the Ministry of Trade No. 7 of 2022 on Distribution and Control of Hazardous Materials

Type of hazardous materials subject to distribution and : Not applicable control, Annex I

Type of hazardous materials subject to distribution and : Not applicable control, Annex II

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

AICS	:	not determined
DSL	:	not determined
IECSC	:	not determined

#### **16. OTHER INFORMATION**

Revision Date	:	2023/12/08
Further information		
Sources of key data used to compile the Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/



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Full text of other abbreviations

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; TECI - Thailand Existing Chemicals Inventory; 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

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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