



Flugestone Acetate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
4.0	2024/09/28	10821892-00006	Date of first issue: 2022/07/28

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Flugestone Acetate Formulation			
Manufacturer or supplier's details Company : MSD					
Address	:	No. 485 Jing Tai Road Pu Tuo District - Shanghai - China 200331			
Telephone	:	+1-908-740-4000			
Emergency telephone number	:	86-571-87268110			
E-mail address	:	EHSDATASTEWARD@msd.com			
Recommended use of the chemical and restrictions on use					
Recommended use Restrictions on use	:	Veterinary product Not applicable			

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance Colour Odour	:	powder white odourless
May damage fertility. May dama effects.	age	e the unborn child. Very toxic to aquatic life with long lasting
GHS Classification		
Reproductive toxicity	:	Category 1B
Long-term (chronic) aquatic hazard	:	Category 1
GHS label elements		
Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H360FD May damage fertility. May damage the unborn child. H410 Very toxic to aquatic life with long lasting effects.

according to GB/T 16483 and GB/T 17519



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Precautionary statements

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention. P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

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

Physical and chemical hazards

Not classified based on available information.

Health hazards

May damage fertility. May damage the unborn child.

Environmental hazards

Very toxic to aquatic life with long lasting effects.

Other hazards which do not result in classification

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
flugestone 17-acetate	2529-45-5	>= 2.5 -< 10

4. FIRST AID MEASURES

General advice	:	In the case of accident or if you feel unwell, seek medical ad- vice immediately.
		When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air.

according to GB/T 16483 and GB/T 17519



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	In case	of skin contact	:	of water.	, immediately flush skin with soap and plenty nated clothing and shoes. tion.		
	In case	of eye contact	:	Thoroughly clean If in eyes, rinse w	shoes before reuse. ell with water.		
	lf swalle	owed	:	Get medical attention if irritation develops and persists. If swallowed, DO NOT induce vomiting. Get medical attention.			
		nportant symptoms ects, both acute and d	:	May damage ferti Contact with dust the skin.	bughly with water. lity. May damage the unborn child. can cause mechanical irritation or drying of		
	Protect	ion 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			
	Notes t	o physician	:		I for exposure exists (see section 8). cally and supportively.		
5. FI	REFIG	TING MEASURES					
	Suitable	e extinguishing media	:	Water spray Alcohol-resistant Carbon dioxide (C Dry chemical			
	Unsuita media	ble extinguishing	:	None known.			
	Specific fighting	c hazards during fire-	:	concentrations, and potential dust exp	dust; fine dust dispersed in air in sufficient nd in the presence of an ignition source is a losion hazard. pustion products may be a hazard to health.		
	Hazard ucts	ous combustion prod-	:	Carbon oxides			
	Specific ods	c extinguishing meth-	:	cumstances and t Use water spray t	measures that are appropriate to local cir- he surrounding environment. o cool unopened containers. ged containers from fire area if it is safe to do		
	Special for firefi	protective equipment ighters	:		e, wear self-contained breathing apparatus. tective equipment.		

6. ACCIDENTAL RELEASE MEASURES

according to GB/T 16483 and GB/T 17519



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	tive equ	al precautions, protec- upment and emer- procedures	:		ective equipment. ing advice (see section 7) and personal pro- recommendations (see section 8).
	Environ	mental precautions	:	Retain and dispos	akage or spillage if safe to do so. e of contaminated wash water. should be advised if significant spillages
		s and materials for ment and cleaning up	:	tainer for disposal Avoid dispersal of with compressed a Dust deposits sho es, as these may leased into the atr Local or national r posal of this mate employed in the c mine which regula Sections 13 and 1	dust in the air (i.e., clearing dust surfaces

7. HANDLING AND STORAGE

Handling	
Technical measures	 Static electricity may accumulate and ignite suspended dust causing an explosion. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Local/Total ventilation	: If sufficient ventilation is unavailable, use with local exhaust ventilation.
Advice on safe handling	 Do not get on skin or clothing. Do not breathe dust. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Keep container tightly closed. Minimize dust generation and accumulation. Keep container closed when not in use. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.
Avoidance of contact	: Oxidizing agents



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Storage

Conditions for safe storage Materials to avoid		Keep in properly labelled containers. Store locked up. Keep tightly closed. Store in accordance with the particular national regulations. Do not store with the following product types: Strong oxidizing agents
Packaging material	:	Unsuitable material: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
flugestone 17-acetate	2529-45-5	TWA	0.2 µg/m3 (OEB 5)	Internal
		Wipe limit	2 µg /100 cm2	Internal

Engineering measures :	Use closed processing systems or containment technologies to control at source (e.g., glove boxes/isolators) and to pre- vent leakage of compounds into the workplace. All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. No open handling permitted. Totally enclosed processes and materials transport systems are required. Operations require the use of appropriate containment tech- nology designed to prevent leakage of compounds into the workplace.
Personal protective equipment	
Respiratory protection :	sure assessment demonstrates exposures outside the rec- ommended guidelines, use respiratory protection.
51	Particulates type Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
Skin and body protection :	Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, dis- posable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.

according to GB/T 16483 and GB/T 17519



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Hand	l protection		
М	aterial	: Chemical-resis	tant gloves
	emarks ene measures	eye flushing sy ing place. When using do Wash contamin The effective o engineering co appropriate de industrial hygie	le gloving. chemical is likely during typical use, provide stems and safety showers close to the work- not eat, drink or smoke. nated clothing before re-use. peration of a facility should include review of ntrols, proper personal protective equipment, gowning and decontamination procedures, ne monitoring, medical surveillance and the trative controls.
9. PHYSIC	CAL AND CHEMICAL I	PROPERTIES	
Appe	arance	: powder	
Colou	ır	: white	
Odou	ır	: odourless	
Odou	ır Threshold	: No data availa	ble

: No data available

•		
Melting point/freezing point	:	No data available

pН

Initial boiling point and boiling	•	No data available

range	•	
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	May form explosive dust-air mixture during processing, han- dling or other means.
Flammability (liquids)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable



according to GB/T 16483 and GB/T 17519

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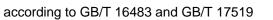
Version 4.0	Revision Date: 2024/09/28		ate of last issue: 2024/04/06 ate of first issue: 2022/07/28
Relat	tive density	No data available	
Dens	sity	No data available	
	bility(ies) /ater solubility	partly miscible	
	tion coefficient: n-	Not applicable	
	nol/water -ignition temperature	No data available	
Deco	mposition temperature	No data available	
Visco Vi	osity iscosity, kinematic	Not applicable	
Explo	osive properties	Not explosive	
Oxidi	zing properties	The substance or m	ixture is not classified as oxidizing.
Mole	cular weight	No data available	
	cle characteristics cle size	No data available	
10. STAB			
	nical stability ibility of hazardous reac-	Not classified as a r Stable under norma May form explosive dling or other means Can react with stron	I conditions. dust-air mixture during processing, han- s.
Cond	litions to avoid	Heat, flames and sp	
	npatible materials Irdous decomposition ucts	Avoid dust formation Oxidizing agents No hazardous deco	n. mposition products are known.

11. TOXICOLOGICAL INFORMATION

Exposure routes	: Inhalation
-	Skin contact
	Ingestion
	Eye contact

Acute toxicity

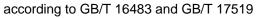
Not classified based on available information.





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0				
-	oonents:			
-	stone 17-acetate: oral toxicity	:	Remarks: No data	a available
	corrosion/irritation assified based on avai	ilable	information.	
Comp	oonents:			
fluges Rema	stone 17-acetate: rks	:	No data available	
	us eye damage/eye iı assified based on avai			
	oonents:			
fluges	stone 17-acetate:			
Rema	rks	:	No data available Mild eye irritation	
Respi	ratory or skin sensit	isatio	on	
	sensitisation assified based on avai	ilable	information.	
-	iratory sensitisation assified based on avai	ilable	information.	
Comp	oonents:			
fluges Rema	stone 17-acetate: rks	:	No data available	
	cell mutagenicity assified based on avai	labla	information	
	oonents:	liable	information.	
fluges	stone 17-acetate:			
Genot	toxicity in vitro	:	Test Type: Microb Result: negative	vial mutagenesis assay (Ames test)
			Test Type: Mouse Result: negative	e Lymphoma
			Test Type: Chrom Test system: Hum Result: negative	nosomal aberration nan lymphocytes





Flugestone Acetate Formulation

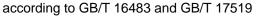
rsion	Revision Date: 2024/09/28	-	9S Number: 821892-00006	Date of last issue: 2024/04/06 Date of first issue: 2022/07/28
Geno	toxicity in vivo	:	Remarks: No dat	a available
	cell mutagenicity -	:	Weight of eviden cell mutagen.	ce does not support classification as a germ
	nogenicity assified based on avai	ilable	information.	
<u>Comp</u>	oonents:			
fluge:	stone 17-acetate: arks	:	No data available	9
Carcir ment	nogenicity - Assess-	:	No data available	3
-	oductive toxicity Jamage fertility. May da	amag	e the unborn child	
-	ponents:	Ū		
fluge	stone 17-acetate:			
Effect	s on fertility	:	Species: Rabbit Application Rout	generation reproduction toxicity study
				- Parent: NOAEL: 0.003 mg/kg body weight 0.003 mg/kg body weight
Effect ment	s on foetal develop-	:	Fertility: NOAEL: Test Type: Embr Species: Rat Application Rout General Toxicity Teratogenicity: N	- Parent: NOAEL: 0.003 mg/kg body weight 0.003 mg/kg body weight yo-foetal development
	s on foetal develop-	:	Fertility: NOAEL: Test Type: Embr Species: Rat Application Rout General Toxicity Teratogenicity: N Embryo-foetal to Test Type: Embr Species: Rabbit Application Rout General Toxicity	 Parent: NOAEL: 0.003 mg/kg body weight 0.003 mg/kg body weight yo-foetal development e: Oral Maternal: NOAEL: 0.1 mg/kg body weight OAEL: 10 mg/kg body weight kicity: NOAEL: 10 mg/kg body weight yo-foetal development

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.





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Components:

flugestone	17-acetate:

Exposure routes	: Oral
Target Organs Assessment	: Adrenal gland
Assessment	: Shown to produce significant health effects in animals at con-
	centrations of >10 to 100 mg/kg bw.

Repeated dose toxicity

Components:

flugestone 17-acetate:

:	Rat
:	0.2 mg/kg
:	Oral
:	90 d
:	daily
:	Adrenal gland
	:

Aspiration toxicity

Not classified based on available information.

Experience with human exposure

Components:

flugestone 17-acetate:

General Information : May cause adverse reproductive effects.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

flugestone 17-acetate:

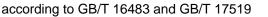
Toxicity to fish (Chronic tox- icity)	:	NOEC (Zebrafish): < 0.0004 µg/l Exposure time: 32 d Method: OECD Test Guideline 210 Remarks: Based on data from similar materials
M-Factor (Chronic aquatic toxicity)	:	100,000
Persistence and degradabilit No data available	у	
Bioaccumulative potential No data available		

according to GB/T 16483 and GB/T 17519



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No d Othe	ility in soil ata available er adverse effects ata available		
		16	
13. DISPO	OSAL CONSIDERATION	15	
Was	osal methods te from residues aminated packaging	Dispose of in a Empty contain dling site for re	e of waste into sewer. accordance with local regulations. ers should be taken to an approved waste han- ecycling or disposal. e specified: Dispose of as unused product.
14. TRAN	ISPORT INFORMATION		
Inter	national Regulations		
UN r	TDG number er shipping name	N.O.S.	NTALLY HAZARDOUS SUBSTANCE, SOLID,
Labe	king group	(flugestone 17 : 9 : III : 9 : yes	
UN/I	A-DGR D No. er shipping name	(flugestone 17	ly hazardous substance, solid, n.o.s. ⁷ -acetate)
Pack Labe Pack aircra	ting group els ting instruction (cargo aft)	: 9 : III : Miscellaneous : 956	
ger a	ing instruction (passen- aircraft) ronmentally hazardous	: 956 : yes	
IMD UN r	G-Code number er shipping name	: UN 3077 : ENVIRONMEN N.O.S.	NTALLY HAZARDOUS SUBSTANCE, SOLID,
Labe EmS	king group	(flugestone 17 : 9 : III : 9 : F-A, S-F : yes	-aceiaie)





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

Not applicable for product as supplied.

National Regulations

GB 6944/12268		
UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
		N.O.S.
		(flugestone 17-acetate)
Class	:	9
Packing group	:	III
Labels	:	9
Marine pollutant	:	no

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.

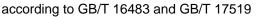
15. REGULATORY INFORMATION

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Regulations on Salety Management of Hazardous C		licals			
Catalogue of Hazardous Chemicals	:	This product is not listed in the cata- logue of hazardous chemicals, but it meets the definition of hazardous chemicals and its principles of de- termination.			
Identification of Major Hazard Installations for Hazardou 18218)	us C	hemicals (GB : Not listed			
Hazardous Chemicals for Priority Management under SAWS	:	Not listed			
Regulations on Labour Protection in Workplaces wi	here	Toxic Substances are Used			
Regulations on Labour Protection in Workplaces will Catalogue of Highly Toxic Chemicals	:	Not listed			
Regulation of Environmental Management on the Fi and Export of Toxic Chemicals	irst	Import of Chemicals and the Import			
China Severely Restricted Toxic Chemicals for Import and Export	:	Not listed			
Regulation on the Administration of Precursor Chemicals					
Catalogue and Classification of Precursor Chemicals	:	Not listed			





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Yangtze River Protection Law

This product does not contain any dangerous chemicals prohibited for inland river transport.

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

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

16. OTHER INFORMATION

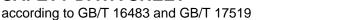
Revision Date	:	2024/09/28
Further information		
Sources of key data used to compile the Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen- cy, http://echa.europa.eu/

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : yyyy/mm/dd

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 Substanc-





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es; (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

Disclaimer

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.

CN/EN