

Version 1.12	Revision Date: 28.09.2024		S Number: 37828-00013	Date of last issue: 06.04.2024 Date of first issue: 01.03.2019
Oration	4 . I.I			
	1: Identification			
Pro	duct identifier	:	Cephapirin (with	Peanut Oil) Formulation
Oth tion	er means of identifica-	:	CEFA-SAFE (AC	007158)
Rec	ommended use of the ch	em	ical and restriction	ons on use
	ommended use trictions on use	:	Veterinary produ Not applicable	ict
Man	ufacturer or supplier's d	eta	ils	
Corr	npany	:	MSD	
Add	ress	:	50 Tuas West D Singapore - Sing	
Tele	phone	:	+1-908-740-400	0
Eme	ergency telephone number	:	65 6697 2111 (2	4/7/365)
E-m	ail address	:	EHSDATASTEW	/ARD@msd.com
Section	2: Hazard identification			
	ssification of the substar piratory sensitisation	ice	or mixture Category 1	
1763	piratory sensitisation	•	Calegory	
	S Label elements, includi	ng	precautionary st	atements
Haz	ard pictograms	:		
Sign	nal word	:	Danger	
Haz	ard statements	:	H334 May cause difficulties if inha	e allergy or asthma symptoms or breathing led.
Prec	cautionary statements	:	Prevention:	
			P261 Avoid brea	thing mist or vapours. iratory protection.
			Posnonso:	

#### Response:

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.



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P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.

#### Disposal:

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

#### Additional Labelling

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 3.2 %

## Other hazards which do not result in classification

None known.

#### Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
Cefapirin	21593-23-7	>= 1 -< 10
Aluminum tristearate	637-12-7	>= 1 -< 10

## Section 4: First-aid measures

Description of necessary 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. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
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 a	effects, both acute and delayed
Risks	May cause allergy or asthma symptoms or breathing difficul- ties if inhaled. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reac- tive airways dysfunction syndrome).
Protection of first-aiders	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).



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Indic	ation of any immediate	e me	edical attention a	nd special treatment needed
Treat	ment	:	Treat symptoma	tically and supportively.
Section 5	: Fire-fighting measure	S		
Exting	guishing media			
Suita	ble extinguishing media	:	Water spray Alcohol-resistant Carbon dioxide ( Dry chemical	
Unsu media	itable extinguishing a	:	None known.	
Spec	ial hazards arising fror	n th	e substance or r	nixture
Spec fightir		:	Exposure to com	bustion products may be a hazard to health.
Haza ucts	rdous combustion prod-	:	Carbon oxides Metal oxides	
Spec	ial protective actions f	or f	ire-fighters	
	ial protective equipment efighters	:		re, wear self-contained breathing apparatus. otective equipment.
Spec ods	ific extinguishing meth-	:	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
Section 6	: Accidental release me	eas	ures	
	precautions, protective onal precautions	e ec :	Use personal pro Follow safe hand	ergency procedures otective equipment. dling advice (see section 7) and personal pro- nt recommendations (see section 8).
	nental precautions	:		the environment. eakage or spillage if safe to do so.

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.

Local authorities should be advised if significant spillages cannot be contained.

# Methods and materials for containment and cleaning up

Hygiene measures



# Cephapirin (with Peanut Oil) Formulation

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Meth	ods for cleaning up	:	For large spills, p ment to keep ma be pumped, store Clean up remaini bent. Local or national posal of this mate employed in the o mine which regul Sections 13 and	t absorbent material. rovide dyking or other appropriate contain- terial from spreading. If dyked material can a recovered material in appropriate container. ng materials from spill with suitable absor- regulations may apply to releases and dis- erial, as well as those materials and items cleanup of releases. You will need to deter- ations are applicable. 15 of this SDS provide information regarding ational requirements.
	: Handling and storag autions for safe hand	-		
		iing		
Tech	nical measures	:		measures under EXPOSURE RSONAL PROTECTION section.
	l/Total ventilation e on safe handling	:	Use only with ade Do not breathe m Do not swallow. Avoid contact wit Avoid prolonged Handle in accord practice, based of sessment Keep container ti Already sensitise to asthma, allergi	equate ventilation. hist or vapours. h eyes. or repeated contact with skin. ance with good industrial hygiene and safety n the results of the workplace exposure as- ghtly closed. d individuals, and those susceptible es, chronic or recurrent respiratory disease, eir physician regarding working with respira-

Conditions for safe storage, including any incompatibilities

:

environment.

place.

_		
Conditions for safe storage	:	Keep in properly labelled containers.
		Keep tightly closed.
		Store in accordance with the particular national regulations.
Materials to avoid	:	Do not store with the following product types:
		Strong oxidizing agents

use of administrative controls.

When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

Take care to prevent spills, waste and minimize release to the

If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working

The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the



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### Section 8: Exposure controls/personal protection

## **Control parameters**

# Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Cefapirin	21593-23-7	TWA	0.4 mg/m3 (OEB 2)	Internal
	Further inform	ation: RSEN		
Aluminum tristearate	637-12-7	PEL (long term)	10 mg/m3	SG OEL
		TWA (Inhal- able particu- late matter)	10 mg/m3	ACGIH
		TWA (Res- pirable par- ticulate mat- ter)	3 mg/m3	ACGIH
		TWA (Res- pirable par- ticulate mat- ter)	1 mg/m3 (Aluminium)	ACGIH

Appropriate engineering : control measures	Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip- less quick connections). All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Laboratory operations do not require special containment.
Individual protection measure	s, such as personal protective equipment (PPE)
Eye/face protection :	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 protection : Respiratory protection :	Work uniform or laboratory coat. If adequate local exhaust ventilation is not available or expo- sure assessment demonstrates exposures outside the rec-
Filter type : Hand protection	ommended guidelines, use respiratory protection. Combined particulates and organic vapour type
Material :	Chemical-resistant gloves

## Section 9: Physical and chemical properties



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Арг	pearance	:	suspension	
Col	lour	:	No data available	e
Od	our	:	No data available	9
Od	our Threshold	:	No data available	9
pН		:	No data available	9
Me	Iting point/freezing point	:	No data available	9
Initi ran	ial boiling point and boiling ge	:	No data available	9
Fla	sh point	:	No data available	e
Eva	aporation rate	:	No data available	e
Fla	mmability (solid, gas)	:	Not applicable	
Fla	mmability (liquids)	:	No data available	9
	per explosion limit / Upper nmability limit	:	No data available	9
	ver explosion limit / Lower nmability limit	:	No data available	9
Vap	oour pressure	:	No data available	9
Rel	lative vapour density	:	No data available	9
Rel	lative density	:	No data available	9
Dei	nsity	:	No data available	9
	ubility(ies) Water solubility	:	No data available	e
	rtition coefficient: n-	:	Not applicable	
	anol/water o-ignition temperature	:	No data available	9
Dee	composition temperature	:	No data available	9
	cosity Viscosity, kinematic	:	No data available	e
Exp	plosive properties	:	Not explosive	



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Oxidiz	zing properties	:	The substance o	r mixture is not classified as oxidizing.
Molec	ular weight	:	No data available	e
Partic	le characteristics			
Partic	le size	:	Not applicable	
ection 10	): Stability and reactivi	ty		
React	ivitv	:	Not classified as	a reactivity hazard.
Chem	ical stability	:	Stable under nor	mal conditions.
Possil tions	bility of hazardous reac-	:	Can react with st	rong oxidizing agents.
	tions to avoid	:	None known.	
	patible materials	:	Oxidizing agents	
Hazar produ	dous decomposition	:	No hazardous de	ecomposition products are known.
ection 11	I: Toxicological inform	atio	on	
Inform	ation on likely routes of		Inhalation	
	nation on likely routes of sure	:	Inhalation Skin contact	
Inform expos		:	Skin contact Ingestion	
		:	Skin contact	
expos		:	Skin contact Ingestion	
expos Acute	sure		Skin contact Ingestion Eye contact	
expos <b>Acute</b> Not cl	e toxicity		Skin contact Ingestion Eye contact	
expos <b>Acute</b> Not cl	e <b>toxicity</b> assified based on availa ponents:		Skin contact Ingestion Eye contact	
expos Acute Not cl <u>Comp</u> Cefap	e <b>toxicity</b> assified based on availa ponents:	ble	Skin contact Ingestion Eye contact	5,000 mg/kg
expos Acute Not cl <u>Comp</u> Cefap Acute	e <b>toxicity</b> assified based on availa ponents: pirin:	ble i	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26	
Acute Not cl Comp Acute Acute	e <b>toxicity</b> assified based on availa <b>conents:</b> <b>pirin:</b> oral toxicity	ble i	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26	7,600 mg/kg
Acute Not cl Comp Acute Acute	e <b>toxicity</b> assified based on availa <u>conents:</u> pirin: oral toxicity toxicity (other routes of	ble i	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): > Application Route	7,600 mg/kg :: Intraperitoneal
Acute Not cl Comp Acute Acute	e <b>toxicity</b> assified based on availa <u>conents:</u> pirin: oral toxicity toxicity (other routes of	ble i	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): >	7,600 mg/kg :: Intraperitoneal ) mg/kg
expos Acute Not cl Comp Acute Acute admin	e <b>toxicity</b> assified based on availa <u>conents:</u> pirin: oral toxicity toxicity (other routes of	ble i	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): > Application Route LD50 (Rat): 7,800	7,600 mg/kg :: Intraperitoneal ) mg/kg
Acute Not cl Comp Acute Acute admin	e toxicity assified based on availa <u>conents:</u> birin: oral toxicity toxicity (other routes of histration)	ble : :	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): > Application Route LD50 (Rat): 7,800	7,600 mg/kg :: Intraperitoneal 0 mg/kg :: Intraperitoneal
Acute Not cl Comp Acute Acute admin	e toxicity assified based on availa ponents: pirin: oral toxicity toxicity (other routes of histration)	ble : :	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): > Application Route LD50 (Rat): 7,800 Application Route LD50 (Rat, female	7,600 mg/kg :: Intraperitoneal 0 mg/kg :: Intraperitoneal
expos Acute Not cl Cefap Acute Acute admin	e toxicity assified based on availa <u>conents:</u> pirin: oral toxicity toxicity (other routes of histration) inum tristearate: oral toxicity	ble : :	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): > Application Route LD50 (Rat): 7,800 Application Route LD50 (Rat, female Remarks: Based	7,600 mg/kg :: Intraperitoneal ) mg/kg :: Intraperitoneal e): > 2,000 mg/kg on data from similar materials
expos Acute Not cl Cefap Acute Acute admin	e toxicity assified based on availa ponents: pirin: oral toxicity toxicity (other routes of histration)	ble : :	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): > Application Route LD50 (Rat): 7,800 Application Route LD50 (Rat, female Remarks: Based LC50 (Rat): > 5.1 Exposure time: 4	7,600 mg/kg :: Intraperitoneal ) mg/kg :: Intraperitoneal e): > 2,000 mg/kg on data from similar materials 5 mg/l h
expos Acute Not cl Cefap Acute Acute admin	e toxicity assified based on availa <u>conents:</u> pirin: oral toxicity toxicity (other routes of histration) inum tristearate: oral toxicity	ble : :	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): > Application Route LD50 (Rat): 7,800 Application Route LD50 (Rat, female Remarks: Based LC50 (Rat): > 5.1 Exposure time: 4 Test atmosphere:	7,600 mg/kg :: Intraperitoneal 0 mg/kg :: Intraperitoneal e): > 2,000 mg/kg on data from similar materials 5 mg/l h dust/mist
expos Acute Not cl Cefap Acute Acute admin	e toxicity assified based on availa <u>conents:</u> pirin: oral toxicity toxicity (other routes of histration) inum tristearate: oral toxicity	ble : :	Skin contact Ingestion Eye contact information. LD50 (Mouse): 26 LD50 (Mouse): > Application Route LD50 (Rat): 7,800 Application Route LD50 (Rat, female Remarks: Based LC50 (Rat): > 5.1 Exposure time: 4 Test atmosphere: Method: OECD T	7,600 mg/kg :: Intraperitoneal 0 mg/kg :: Intraperitoneal e): > 2,000 mg/kg on data from similar materials 5 mg/l h dust/mist

# Skin corrosion/irritation

Not classified based on available information.



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### **Components:**

Aluminum tristearate	Aluminum	tristearate
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Species Method Remarks	:	reconstructed human epidermis (RhE) OECD Test Guideline 439 Based on data from similar materials
Result	:	No skin irritation

#### Serious eye damage/eye irritation

Not classified based on available information.

## **Components:**

#### Aluminum tristearate:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	Based on data from similar materials

#### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Components:

#### Cefapirin:

Assessment

: Probability or evidence of high respiratory sensitisation rate in humans

#### Aluminum tristearate:

Test Type :	Local lymph node assay (LLNA)
Exposure routes :	Skin contact
Species :	Mouse
Method :	OECD Test Guideline 429
Result :	negative
Remarks :	Based on data from similar materials

:

## Germ cell mutagenicity

Not classified based on available information.

#### **Components:**

## Cefapirin:

Genotoxicity in vitro

Test Type: Bacterial reverse mutation assay (AMES) Result: negative



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Alum	inum tristearate:			
	toxicity in vitro	:	Method: OECD Result: negative	itro mammalian cell gene mutation test Test Guideline 476 e ed on data from similar materials
			Method: OECD Result: negative	terial reverse mutation assay (AMES) Test Guideline 471 e d on data from similar materials
Geno	toxicity in vivo	:	cytogenetic ass Species: Rat Application Rou Method: OECD Result: negative	ute: Ingestion Test Guideline 474
Carci	nogenicity			
Not cl	assified based on avai	lable	information.	
-	oductive toxicity assified based on avai	lable	information.	
<u>Comp</u>	oonents:			
Cefap	birin:			
Effect	s on fertility	:	Species: Rat Application Rou	ility/early embryonic development ute: Intraperitoneal injection .: > 500 mg/kg body weight cts on fertility
Effect ment	s on foetal develop-	:	Species: Rat Application Rou	oryo-foetal development ute: Intraperitoneal injection Toxicity: LOAEL: > 200 mg/kg body weight
Alum	inum tristearate:			
Effect	s on fertility	:	Species: Rat Application Rou Method: OECD Result: negative	Test Guideline 416
Effect ment	s on foetal develop-	:	Test Type: Fert Species: Rat Application Rou Result: negative	



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		Remarks: Ba	sed on data from similar materials
стот	- single exposure		
Not cl	lassified based on av	ailable information.	
STOT	- repeated exposur	e	
Not cl	lassified based on av	ailable information.	
Repe	ated dose toxicity		
<u>Comp</u>	ponents:		
Cefap	oirin:		
Speci		: Rat	
LOAE		: >= 200 mg/kg	
	cation Route	: Intraperitonea	al
	et Organs	: Blood	
Rema	arks	: anemia	
Speci		: Dog	
LOAE		: 20 mg/kg	
	cation Route	: Oral	
	sure time	: 4 Months	
Targe	et Organs	: Gastrointestir	nal tract
Speci		: Dog	
LOAE		: 100 mg/kg	
	cation Route	: Intramuscular	r
	sure time	: 10 Months	
	et Organs	,	pintestinal tract
Rema	arks	: anemia	
Alum	inum tristearate:		
Speci	ies	: Rat	
NOAE		: >= 5,000 mg/	′kg
Applic	cation Route	: Ingestion	-
	sure time	: 90 Days	
Rema	arks	: Based on dat	a from similar materials

## Aspiration toxicity

Not classified based on available information.

#### Experience with human exposure

# Components:

# Cefapirin:

Ingestion

: Symptoms: Nausea, Vomiting, Abdominal pain, Diarrhoea, vaginitis, colitis, anorexia, Rash, anaphylaxis



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# Section 12: Ecological information

:	Toxic effects cannot be excluded
:	Toxic effects cannot be excluded
ity	
	:

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

# Section 14: Transport information

#### International Regulations

# UNRTDG

UN number UN proper shipping name Transport hazard class(es) Subsidiary risk Packing group Labels Environmentally hazardous		Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable no
IATA-DGR UN/ID No. UN proper shipping name Transport hazard class(es) Subsidiary risk	:	Not applicable Not applicable Not applicable Not applicable



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Packing group Labels Packing instruction (cargo aircraft) Packing instruction (passen- ger aircraft)	:	Not applicable Not applicable Not applicable Not applicable		
IMDG-Code UN number UN proper shipping name Transport hazard class(es) Subsidiary risk Packing group Labels EmS Code Marine pollutant		Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable		
Transport in bulk according to IMO instruments				

Not applicable for product as supplied.

Special precautions for user

Not applicable

Regulations

## Section 15: Regulatory information

## Safety, health and environmental regulations specific for the product in question

Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations: This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.
Environmental Protection and Management Act and Environmental Protection and Management (Hazard-

ous Substances) Regulations Fire Safety (Petroleum and Flammable Materials) : Not applicable

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

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

## Section 16: Other information

Revision Date	:	28.09.2024
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/



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Full text of other abbreviations			
ACGIH SG OEL	:	USA. ACGIH Threshold Limit Values (TLV) Singapore. Workplace Safety and Health (General Provisions) Regulations - First Schedule Permissible Exposure Limits of Toxic Substances.	
ACGIH / TWA SG OEL / PEL (long term)	:	8-hour, time-weighted average Permissible Exposure Level (PEL) Long Term	

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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SG / EN