

British Pharmacopoeia

Quality standards

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 19-Oct-2023

Revision Number 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier	
Product Code(s)	CAT 672

Product Name Warfarin Assay Standard

Not applicable Form

NOTE [8] - No registration number is given for this substance because it is under the threshold in REACH Article 6(1) and not subject to the registration requirements according to REACH Title II

EC No (EU Index No)	201-377-6
CAS No.	81-81-2
Pure substance/mixture	Substance
Formula	C ₁₉ H ₁₆ O ₄
Molecular weight	308.33
1.2. Relevant identified uses of the s	substance or mixture and uses advised against
Recommended use	Laboratory use

Uses advised against No information available

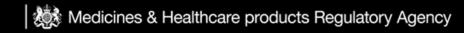
1.3. Details of the supplier of the safety data sheet

Supplier

British Pharmacopoeia Commission MHRA 10 South Colonnade Canary Wharf London E14 4PU United Kingdom

Tel: +44 (0)20 3080 6561 eMail: bpcrs@mhra.gov.uk

For further information, please contact





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E-mail address

bpcrs@mhra.gov.uk

1.4. Emergency telephone number

Emergency Telephone

+44 (0)20 3080 6561 (Monday - Friday: 8am - 5pm)

Emergency Telephone - §45 - (EC)1272/2008				
Europe	112			
Austria	No information available			
Bulgaria				
Croatia				
Cyprus				
Czech Republic				
Denmark				
France				
Hungary				
Ireland				
Italy				
Lithuania				
Luxembourg				
Netherlands				
Norway				
Portugal				
Romania				
Slovakia				
Slovenia				
Spain				
Sweden				
Switzerland				

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to

Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral	Category 1 - (H300)
Acute toxicity - Dermal	Category 1 - (H310)
Acute toxicity - Inhalation (Dusts/Mists)	Category 1 - (H330)
Reproductive toxicity	Category 1A - (H360D)





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Specific target organ toxicity — repeated exposure	Category 1 - (H372)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements



Signal word Danger

Hazard statements

H300 - Fatal if swallowed

H310 - Fatal in contact with skin

H330 - Fatal if inhaled

H360D - May damage the unborn child

H372 - Causes damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P262 - Do not get in eyes, on skin, or on clothing

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

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

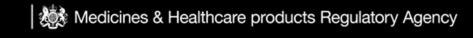
- P310 Immediately call a POISON CENTER or doctor
- P391 Collect spillage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

2.3. Other hazards

No information available.

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.





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This product does not contain any known or suspected endocrine disruptors.

Chemical name	•	EU - REACH (1907/2	006) - Article 59(1)	EU - REACH (1907/2006) - Endocrine
		- Candidate List of S	ubstances of Very	Disruptor Assessment List of
		High Concern (SVH0	C) for Authorisation	Substances
Warfarin		-		-

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	REACH registration number		Classification according to Regulation (EC) No.		M-Factor	M-Factor (long-term)
			· · · · · · · · · · · · · · · · · · ·	1272/2008 [CLP]	limit (SCL)		ίς ση γ
Warfarin 81-81-2	90 - 100%	-	201-377-6	Acute Tox. 1 (H310) Acute Tox. 1 (H330) Acute Tox. 1 (H300) Repr. 1A (H360D) STOT RE 1 (H372)	STOT RE 1 :: C>=0.5% Repr. 1A :: C>=0.003% STOT RE 2 ::		
				Aquatic Chronic 2 (H411)	0.05%<=C<0.5 %		

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Warfarin 81-81-2	1.6	1400	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)





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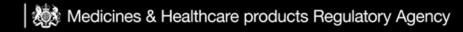
SECTION 4: First aid measures

4.1. Description of first aid measures				
General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.			
Inhalation	If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.			
Eye contact	Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.			
Skin contact	Get immediate medical attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.			
Ingestion	Get immediate medical attention. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person.			
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information.			
4.2. Most important symptoms and e	effects, both acute and delayed			
Symptoms	Coughing and/ or wheezing. Difficulty in breathing.			
4.3. Indication of any immediate med	dical attention and special treatment needed			
Note to doctors	Treat symptomatically.			
SECTION 5: Firefighting m	easures			

CHON 5: Firenghung measures 5

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the
	surrounding environment.





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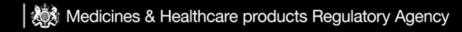
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Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.	
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.	
5.2. Special hazards arising from th	e substance or mixture	
Specific hazards arising from the chemical	No information available.	
5.3. Advice for firefighters		
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid generation of dust. Do not breathe dust. Keep people away from and upwind of spill/leak.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.
6.2. Environmental precautions	
Environmental precautions	Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.
6.3. Methods and material for conta	inment and cleaning up
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
6.4. Reference to other sections	





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Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash it before reuse. Do not breathe dust. Avoid generation of dust. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.
General hygiene considerations	Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage ConditionsStore locked up. Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children. Please refer to the manufacturer's certificate for specific
storage and transport temperature conditions. Store only in the original receptacle unless
other advice is given on the CoA.

7.3. Specific end use(s)

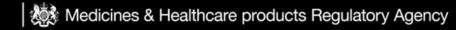
Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia





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				n	
Warfarin	-	TWA: 0.1 mg/m ³	TWA: 0.01 mg/m ³	-	TWA: 0.5 mg/m ³
81-81-2		STEL 0.5 mg/m ³	*		STEL: 1.5 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Warfarin	-	-	TWA: 0.1 mg/m ³	-	TWA: 0.1 mg/m ³
81-81-2					STEL: 0.3 mg/m ³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Warfarin	TWA: 0.1 mg/m ³	TWA: 0.0016 ppm	TWA: 0.0016 ppm	TWA: 0.5 mg/m ³	-
81-81-2	-	TWA: 0.02 mg/m ³	TWA: 0.02 mg/m ³	_	
		H* Č	Peak: 0.0128 ppm		
			Peak: 0.16 mg/m ³		
			*		
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Warfarin	TWA: 0.1 mg/m ³	-	TWA: 0.01 mg/m ³	TWA: 0.001 mg/m	3 -
81-81-2	STEL: 0.3 mg/m ³			, i i i i i i i i i i i i i i i i i i i	
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Warfarin	-	-	-	TWA: 0.1 mg/m ³	-
81-81-2				STEL: 0.3 mg/m ³	
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Warfarin	TWA: 0.1 mg/m ³	-	-	TWA: 0.02 mg/m ³	TWA: 0.1 mg/m ³
81-81-2				TWA: 0.0016 ppn	1
				STEL: STEL mg/n	
				STEL: STEL ppm	
				*	
Chemical name	SI	weden	Switzerland	L	nited Kingdom
Warfarin		-	TWA: 0.0016 pp	m	-
81-81-2			TWA: 0.02 mg/r	n ³	
			STEL: 0.16 mg/r	m ³	
			STEL: 0.0128 pp	om 🛛	
			H*		

Biological occupational exposure limits

Chemical name	Slovenia	Spain	Switzerland	United Kingdom
Warfarin	-	-	>=70 % (whole blood -	-
81-81-2			quick's value no	
			restrictions)	

Derived No Effect Level (DNEL) Predicted No Effect Concentration No information available. (PNEC)

No information available.





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8.2. Exposure controls

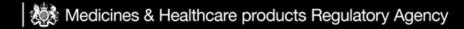
Personal protective equipment	
Eye/face protection	Avoid contact with eyes. Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves. Impervious gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective butyl rubber gloves.
Skin and body protection	Impervious clothing. Long sleeved clothing. Chemical resistant apron. Wear suitable protective clothing.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General hygiene considerations	Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical propertiesPhysical stateSolidAppearanceCrystallineColourwhiteOdourNo information available.Odour thresholdNo information available

PropertyValuesMelting point / freezing point165 °CInitial boiling point and boiling rangeNo data available

Remarks • Method None known None known





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Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	17 mg/l	@ 20 °C
Solubility(ies)	No data available	None known
Partition coefficient	2.6	None known
Vapour pressure	0.003 Pa	None known
Relative density	1.35	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	
9.2. Other information		
Molecular weight	308.33	
Molecular formula	C 19H16O 4	

9.2.1. Information with regards to physical hazard classes Not applicable

9.2.2. Other safety characteristics No information available

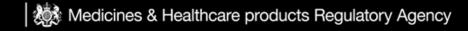
SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity

No information available.

10.2. Chemical stability





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Stability

Stable under normal conditions.

Explosion data Sensitivity to mechanical impact None. Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Excessive heat. **Conditions to avoid**

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

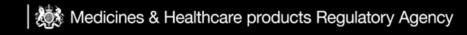
SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Fatal in contact with skin. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Fatal if swallowed. (based on components).
Symptoms related to the physical,	chemical and toxicological characteristics
Symptoms	Coughing and/ or wheezing. Difficulty in breathing.





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Numerical measures of toxicity

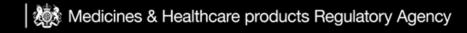
Acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	
Warfarin	= 1600 µg/kg (Rat)	= 1400 mg/kg (Rat)		
Delayed and immediate effects as well as chronic effects from short and long-term exposure				
Skin corrosion/irritation	Based on available data, t	he classification criteria are not m	net.	
Serious eye damage/eye irritati	on No information available.			
Respiratory or skin sensitisatio	n No information available.			
Germ cell mutagenicity	No information available.			
Carcinogenicity	No information available.			
Reproductive toxicity	•	ected reproductive toxin. Classifi ge fertility or the unborn child.	cation based on data available	
	The table below indicates ingredients above the cut-off threshold of			
	Chemical name		an Union	
Warfarin		l Rep	r. 1A	

STOT - single exposure

No information available.





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STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

H372 - Causes damage to the following organs through prolonged or repeated exposure: Blood.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Warfarin	-	LC50: 6.02 mg/L (Fish, 96h)	-	EC50: 130 mg/l (Crustacean, 48h)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

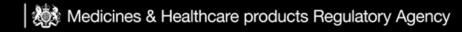
Bioaccumulation

There is no data for this product.

Component Information

Chemical name	Partition coefficient
Warfarin	2.6

12.4. Mobility in soil





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Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Chemical name	PBT and vPvB assessment
Warfarin	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

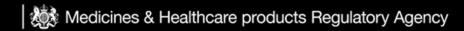
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information

IATA 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es) 14.4 Packing group	UN3027 Coumarin derivative pesticide, solid, toxic (Warfarin) 6.1 I
Description 14.5 Environmental hazards 14.6 Special precautions for user Special Provisions ERG Code	UN3027, Coumarin derivative pesticide, solid, toxic (Warfarin), 6.1, I Yes A3, A5 6L





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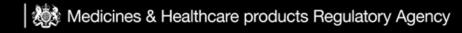
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IMDG	
14.1 UN number or ID number	UN3027
14.2 UN proper shipping name	Coumarin derivative pesticide, solid, toxic (Warfarin)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	
Description	UN3027, Coumarin derivative pesticide, solid, toxic (Warfarin), 6.1, I, Marine pollutant
14.5 Marine pollutant	Ρ
Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	61, 274
EmS-No.	F-A, S-A No information available
14.7 Maritime transport in bulk	No information available
according to IMO instruments	
•	
RID	
14.1 UN number or ID number	UN3027
14.2 UN proper shipping name	Coumarin derivative pesticide, solid, toxic (Warfarin)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	
Description	UN3027, Coumarin derivative pesticide, solid, toxic (Warfarin), 6.1, I, Environmentally
-	Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	61, 274, 648
Classification code	T7
ADR	
14.1 UN number or ID number	UN3027
14.2 UN proper shipping name	Coumarin derivative pesticide, solid, toxic (Warfarin)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	
Description	UN3027, Coumarin derivative pesticide, solid, toxic (Warfarin), 6.1, I, (C/E),
-	Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	61, 274, 648
Classification code	T7
Tunnel restriction code	(C/E)

SECTION 15: Regulatory information





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

Water hazard class (WGK) strongly hazardous to water (WGK 3)

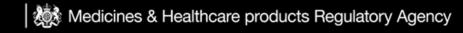
Netherlands

Chemical name	Netherlands - List of	Netherlands - List of	Netherlands - List of
	Carcinogens	Carcinogens	Reproductive Toxins
Warfarin	-	-	Development Category 1A

Poland

SDS created according to the following Polish regulation: Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws of 2018, item 143, as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency (EC) as amended. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, as amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and method of classifying chemical substances and their mixtures (Journal of Laws of 2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling packaging of hazardous substances and mixtures and some mixtures (Journal of Laws of 2012, item 445), Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286). Announcement of the Minister of Economy, Labor and Social Policy of August 28, 2003 on the publication of the unified text of the Ordinance of the Minister of Labor and Social Policy on general health and safety at work regulations (Journal of Laws of 2003, No. 169, item 1650) . Regulation of the Minister of Health of 30 December 2004 on occupational safety and health related to the presence of chemical agents in the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012 on waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of December 30, 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the management of packaging and packaging waste, Journal of Laws 2013, item 888). Government statement of September 24, 2002 - European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194, item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).

European Union





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Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors Not applicable

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Warfarin - 81-81-2	30.	

Persistent Organic Pollutants

Not applicable

Export Notification requirements

This product contains substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals

Chemical name	European Export/Import Restrictions per (EC) 649/2012 - Annex
	Number
Warfarin - 81-81-2	l.1

Dangerous substance category per Seveso Directive (2012/18/EU)

H1 - ACUTE TOXIC

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

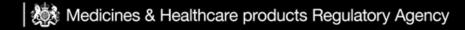
Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)	
Warfarin - 81-81-2	Product-type 14: Rodenticides	

International Inventories	
TSCA	Complies
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status





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IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report

A Chemical Safety Assessment is not required for this substance

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H300 - Fatal if swallowed

H310 - Fatal in contact with skin

H330 - Fatal if inhaled

H360D - May damage the unborn child

H372 - Causes damage to organs through prolonged or repeated exposure

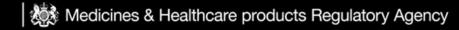
H411 - Toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend	Section 8: Exposure controls/personal protect	ction	
TWĀ	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure Classification according to Regulation (EC) No. 1272/2008 [CLP] Method Used Acute oral toxicity Calculation method





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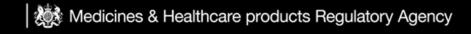
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Acute dermal toxicity	Calculation method	
Acute inhalation toxicity - gas	Calculation method	
Acute inhalation toxicity - Vapour	Calculation method	
Acute inhalation toxicity - dust/mist	Calculation method	
Skin corrosion/irritation	Calculation method	
Serious eye damage/eye irritation	Calculation method	
Respiratory sensitisation	Calculation method	
Skin sensitisation	Calculation method	
Mutagenicity	Calculation method	
Carcinogenicity	Calculation method	
STOT - single exposure	Calculation method	
STOT - repeated exposure	Calculation method	
Acute aquatic toxicity	Calculation method	
Chronic aquatic toxicity	Calculation method	
Aspiration hazard	Calculation method	
Ozone	Calculation method	

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme Organisation for Economic Co-operation and Development Screening Information Data Set World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 Disclaimer

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. British Pharmacopoeia Commission Office makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be heldresponsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise. End of Safety Data Sheet