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Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No. : 373965
V002.0

LOCTITE CAT 14 WH known as CAT 14 WHT 4 OZ JAR/INDIV

Revision: 21.10.2024
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE CAT 14 WH known as CAT 14 WHT 4 OZ JAR/INDIV
UFI: TVH9-AXKU-T20X-G9S9

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:
Hardener

1.3. Details of the supplier of the safety data sheet

Henkel Ireland
Operations and Research Limited
Tallaght Business Park, Whitestown
24 Dublin

Ireland

Phone: +353 (0353) 1 404 6444

SDSinfo.Adhesive@henkel.com
For Safety Data Sheet updates please visit our website www.mysds.henkel.com or www.henkel-adhesives.com.

1.4. Emergency telephone number

00353 14046280

National Poisons Information Centre: Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin corrosion	Category 1
H314 Causes severe skin burns and eye damage.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Respiratory sensitizer	Category 1
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	

2.2. Label elements

Label elements (CLP):

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Hazard pictogram:	
Contains	phthalic anhydride benzene-1,2:4,5-tetracarboxylic dianhydride maleic anhydride
Signal word:	Danger
Hazard statement:	H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation.
Precautionary statement: Prevention	P280 Wear protective gloves/protective clothing/eye protection/face protection. P261 Avoid breathing dust.
Precautionary statement: Response	P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor. P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration ≥ the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration ≥ the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
phthalic anhydride 85-44-9 201-607-5 01-2119457017-41	50- < 100 %	Eye Dam. 1, H318 Skin Irrit. 2, H315 STOT SE 3, H335 Acute Tox. 4, Oral, H302 Skin Sens. 1, H317 Resp. Sens. 1, H334		
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7 201-898-9 01-2120755188-46	25- < 50 %	Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1, H317		
maleic anhydride 108-31-6 203-571-6 01-2119472428-31	0,01- < 0,1 %	STOT RE 1, Inhalation, H372 Acute Tox. 4, Oral, H302 Skin Sens. 1A, H317 Resp. Sens. 1, H334 Eye Dam. 1, H318 Skin Corr. 1B, H314	Skin Sens. 1A; H317; C >= 0,001 %	

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.
For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

SKIN: Rash, Urticaria.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

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

Causes burns.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

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5.1. Extinguishing media
Suitable extinguishing media:
water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

5.2. Special hazards arising from the substance or mixture
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:
In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
Wear protective equipment.
Ensure adequate ventilation.
Avoid dust formation.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
Dispose of contaminated material as waste according to Section 13.
Scrape up as much material as possible.
Sweep up spilled material. Avoid creating dust.
Store in a partly filled, closed container until disposal.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid skin and eye contact.
See advice in section 8

Hygiene measures:
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities
Ensure good ventilation/extraction.
Keep container tightly sealed.
Refer to Technical Data Sheet.

7.3. Specific end use(s)
Hardener

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m^3	Value type	Short term exposure limit category / Remarks	Regulatory list
Phthalic anhydride 85-44-9 [PHTHALIC ANHYDRIDE]	1		Time Weighted Average (TWA):		IR_OEL
Phthalic anhydride 85-44-9 [PHTHALIC ANHYDRIDE]		12	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Maleic anhydride 108-31-6 [MALEIC ANHYDRIDE]	0,01		Time Weighted Average (TWA):		IR_OEL

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m^3	Value type	Short term exposure limit category / Remarks	Regulatory list
phthalic anhydride 85-44-9 [PHTHALIC ANHYDRIDE]		4	Time Weighted Average (TWA):		EH40 WEL
phthalic anhydride 85-44-9 [PHTHALIC ANHYDRIDE]		12	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
maleic anhydride 108-31-6 [MALEIC ANHYDRIDE]		1	Time Weighted Average (TWA):		EH40 WEL
maleic anhydride 108-31-6 [MALEIC ANHYDRIDE]		3	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

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Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
phthalic anhydride 85-44-9	Soil				0,173 mg/kg		
phthalic anhydride 85-44-9	sewage treatment plant (STP)		10 mg/l				
phthalic anhydride 85-44-9	sediment (freshwater)				3,8 mg/kg		
phthalic anhydride 85-44-9	sediment (marine water)				0,38 mg/kg		
phthalic anhydride 85-44-9	aqua (marine water)		0,1 mg/l				
phthalic anhydride 85-44-9	aqua (intermittent releases)		5,6 mg/l				
phthalic anhydride 85-44-9	aqua (freshwater)		1 mg/l				
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	aqua (freshwater)		0,0079 mg/l				
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	aqua (marine water)		0,00079 mg/l				
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	aqua (intermittent releases)		0,079 mg/l				
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	sewage treatment plant (STP)		23 mg/l				
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	sediment (freshwater)				0,0292 mg/kg		
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	sediment (marine water)				0,00292 mg/kg		
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	Air						no hazard identified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	soil				0,00121 mg/kg		
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	Predator						no potential for bioaccumulation
maleic anhydride 108-31-6	aqua (freshwater)		0,038 mg/l				
maleic anhydride 108-31-6	aqua (marine water)		0,004 mg/l				
maleic anhydride 108-31-6	Soil				0,037 mg/kg		
maleic anhydride 108-31-6	sediment (freshwater)				0,296 mg/kg		
maleic anhydride 108-31-6	sediment (marine water)				0,03 mg/kg		
maleic anhydride 108-31-6	sewage treatment plant (STP)		44,6 mg/l				
maleic anhydride 108-31-6	Freshwater - intermittent		0,379 mg/l				
maleic anhydride 108-31-6	Marine water - intermittent		0,038 mg/l				

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Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
phthalic anhydride 85-44-9	Workers	inhalation	Long term exposure - systemic effects		32,2 mg/m3	
phthalic anhydride 85-44-9	Workers	dermal	Long term exposure - systemic effects		10 mg/kg	
phthalic anhydride 85-44-9	General population	inhalation	Long term exposure - systemic effects		8,6 mg/m3	
phthalic anhydride 85-44-9	General population	dermal	Long term exposure - systemic effects		5 mg/kg	
phthalic anhydride 85-44-9	General population	oral	Long term exposure - systemic effects		5 mg/kg	
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	Workers	inhalation	Long term exposure - systemic effects		70,4 mg/m3	no hazard identified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	Workers	dermal	Long term exposure - systemic effects		10 mg/kg	no hazard identified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	General population	inhalation	Long term exposure - systemic effects		17,4 mg/m3	no hazard identified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	General population	dermal	Long term exposure - systemic effects		5 mg/kg	no hazard identified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	General population	oral	Long term exposure - systemic effects		5 mg/kg	no hazard identified
maleic anhydride 108-31-6	Workers	inhalation	Acute/short term exposure - systemic effects		0,2 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Acute/short term exposure - local effects		0,2 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Long term exposure - systemic effects		0,081 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Long term exposure - local effects		0,081 mg/m3	
maleic anhydride 108-31-6	Workers	dermal	Acute/short term exposure - systemic effects			
maleic anhydride 108-31-6	Workers	dermal	Acute/short term exposure - local effects			
maleic anhydride 108-31-6	Workers	dermal	Long term exposure - systemic effects			
maleic anhydride 108-31-6	Workers	dermal	Long term exposure - local effects			

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

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Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Dust mask, P2 particle filter.

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:
The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.
Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form	solid
Colour	Off white
Odor	neutral
Physical state	solid
Melting point	130 °C (266 °F)
Solidification temperature	Not applicable, Product is a solid.
Initial boiling point	> 270 °C (> 518 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, Product is a solid.
Flash point	Not applicable, Product is a solid.
Auto-ignition temperature	Not applicable, Product is a solid.
Decomposition temperature	> 300 °C (> 572 °F);
pH (20 °C (68 °F); Conc.: 0,3 % product; Solvent: Water)	2
Viscosity (kinematic)	Not applicable, Product is a solid.
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Slightly soluble
Partition coefficient: n-octanol/water	Not applicable Mixture
Vapour pressure (20 °C (68 °F))	< 0,1 hPa
Density (20 °C (68 °F))	1,6 g/cm3
Bulk density	0,5 g/cm3
Relative vapour density:	Not applicable, Product is a solid.
Particle characteristics	Particle size - D98 < 45 µm Volume based calculation method
Particle characteristics	Particle size - D99 < 75 µm Volume based calculation method

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9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts with strong oxidants.
Reaction with strong acids.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
Stable under normal conditions of storage and use.

10.5. Incompatible materials
See section reactivity.

10.6. Hazardous decomposition products
carbon oxides.

SECTION 11: Toxicological information

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

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
phthalic anhydride 85-44-9	LD50	1.530 mg/kg	rat	not specified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	LD50	> 2.000 mg/kg	rat	OECD Guideline 420 (Acute Oral Toxicity)
maleic anhydride 108-31-6	LD50	1.090 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
phthalic anhydride 85-44-9	LD50	> 3.160 mg/kg	rabbit	not specified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
maleic anhydride 108-31-6	LD50	2.620 mg/kg	rabbit	not specified

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Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
phthalic anhydride 85-44-9	LC50	> 2,14 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
phthalic anhydride 85-44-9	moderately irritating	24 h	rabbit	not specified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	not irritating		Human, SkinEthicTM RHE, Reconstructed Human Epidermis	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
maleic anhydride 108-31-6	highly irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
phthalic anhydride 85-44-9	Category 1 (irreversible effects on the eye)		rabbit	not specified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
maleic anhydride 108-31-6	corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
phthalic anhydride 85-44-9	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
phthalic anhydride 85-44-9	sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
maleic anhydride 108-31-6	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

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Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
phthalic anhydride 85-44-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
phthalic anhydride 85-44-9	negative	in vitro mammalian chromosome aberration test	with and without		Chromosome Aberration Test
phthalic anhydride 85-44-9	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
phthalic anhydride 85-44-9	negative	sister chromatid exchange assay in mammalian cells	with and without		DNA damage and repair assay, UDS in mammalian cells
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	negative	in vitro mammalian cell transformation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
maleic anhydride 108-31-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
phthalic anhydride 85-44-9	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
maleic anhydride 108-31-6	negative	inhalation		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
phthalic anhydride 85-44-9	not carcinogenic	oral: feed	105 w daily	rat	male/female	not specified

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	NOAEL P 250 mg/kg NOAEL F1 750 mg/kg		oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
maleic anhydride 108-31-6	NOAEL P 55 mg/kg NOAEL F1 55 mg/kg	Two generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

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STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
phthalic anhydride 85-44-9	NOAEL 500 mg/kg	oral: feed	105 w daily	rat	not specified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	NOAEL >= 250 mg/kg	oral: feed	14 d daily	rat	not specified
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	NOAEL >= 1.000 mg/kg	oral: feed	14 d daily	rat	not specified
maleic anhydride 108-31-6	NOAEL 40 mg/kg	oral: feed	90 d daily	rat	not specified

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

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SECTION 12: Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
phthalic anhydride 85-44-9	LC50	313 mg/l	48 h	Leuciscus idus	DIN 38412-15
phthalic anhydride 85-44-9	NOEC	10 mg/l	60 d	no data	OECD Guideline 210 (fish early lite stage toxicity test)
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	LC50	> 100 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
maleic anhydride 108-31-6	LC50	75 mg/l	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
phthalic anhydride 85-44-9	EC50	> 640 mg/l	48 h	Daphnia magna	other guideline:
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	EC50	63 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
maleic anhydride 108-31-6	EC50	77 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
phthalic anhydride 85-44-9	NOEC	16 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

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The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
phthalic anhydride 85-44-9	EC50	> 100 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
phthalic anhydride 85-44-9	NOEC	100 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	EC50	8,1 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	NOEC	6,25 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic anhydride 108-31-6	EC50	29 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic anhydride 108-31-6	EC10	23 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
phthalic anhydride 85-44-9	EC50	> 1.000 mg/l	3 h	activated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	EC10	23 mg/l	18 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
maleic anhydride 108-31-6	EC10	44,6 mg/l		Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
phthalic anhydride 85-44-9	readily biodegradable	aerobic	85,2 %	14 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	readily biodegradable	aerobic	100 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
maleic anhydride 108-31-6	readily biodegradable	aerobic	98 %	7 d	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)

12.3. Bioaccumulative potential

No data available.

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12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
phthalic anhydride 85-44-9	1,6		EU Method A.8 (Partition Coefficient)
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	-2,03	21,5 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
maleic anhydride 108-31-6	-2,61	19,8 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
phthalic anhydride 85-44-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
benzene-1,2:4,5-tetracarboxylic dianhydride 89-32-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
maleic anhydride 108-31-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Do not empty into drains / surface water / ground water.
Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09* waste adhesives and sealants containing organic solvents and other dangerous substances
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

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SECTION 14: Transport information

14.1. UN number or ID number

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.2. UN proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.3. Transport hazard class(es)

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.4. Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 2024/590):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content	< 3 %

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(2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H372 Causes damage to organs through prolonged or repeated exposure.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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