



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

Page 1 of 20

COPYDEX Adhesive (1)

SDS No. : 738921
V002.0

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

1.1. Product identifier

COPYDEX Adhesive (1)

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

Intended use:
Adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd
Adhesives
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

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.	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

Rubber, natural

2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol

Signal word:	Danger
Hazard statement:	H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H412 Harmful to aquatic life with long lasting effects.
Precautionary statement:	P102 Keep out of reach of children. P101 If medical advice is needed, have product container or label at hand.
Precautionary statement: Prevention	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P273 Avoid release to the environment. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves.
Precautionary statement: Response	P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
Precautionary statement: Disposal	P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration \geq 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 \geq 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

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
Rubber, natural 9006-04-6 232-689-0	40- 60 %	Skin Sens. 1, H317 Resp. Sens. 1, H334	oral:ATE = 2.043 mg/kg	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5 271-867-2 01-2119496062-39	0,1- < 1 %	Repr. 2, H361d Aquatic Chronic 4, H413		
ammonia, aqueous solution 1336-21-6 215-647-6 01-2119488876-14	0,1- < 1 %	Skin Corr. 1B, H314 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 Eye Dam. 1, H318	STOT SE 3; H335; C >= 5 % ===== M acute = 1	EU OEL
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4 225-208-0 01-2119529226-41	0,1- < 1 %	Acute Tox. 4, Oral, H302 Acute Tox. 2, Inhalation, H330 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT RE 1, Inhalation, H372	Skin Sens. 1; H317; C >= 0,1 %	
thiram 137-26-8 205-286-2 01-2119492301-45	0,025- < 0,25 % (0,25 %o- < 2,5 %o)	STOT RE 2, H373 Acute Tox. 4, Oral, H302 Acute Tox. 4, Inhalation, H332 Skin Irrit. 2, H315 Aquatic Chronic 1, H410 Aquatic Acute 1, H400 Skin Sens. 1, H317 Eye Irrit. 2, H319	M acute = 10 M chronic = 10	

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

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Delayed effects possible after inhalation.

Skin contact:

Rinse with running water and soap. Skin care. Remove contaminated clothes immediately.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

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

May cause an allergic skin reaction.

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

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

See section: Description of first aid measures

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media:**

carbon dioxide, foam, powder, water spray jet, fine water spray

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) and carbon dioxide (CO₂) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Wear protective equipment.

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Danger of slipping on spilled product.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust).

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Ensure that workrooms are adequately ventilated.

Avoid skin and eye contact.

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store frost-free.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Ammonia, aqueous solution 1336-21-6 [Ammonia, anhydrous]	35	25	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Ammonia, aqueous solution 1336-21-6 [Ammonia, anhydrous]	25	18	Time Weighted Average (TWA):		EH40 WEL
Ammonia, aqueous solution 1336-21-6 [AMMONIA, ANHYDROUS]	50	36	Short Term Exposure Limit (STEL):	Indicative	ECLTV
Ammonia, aqueous solution 1336-21-6 [AMMONIA, ANHYDROUS]	20	14	Time Weighted Average (TWA):	Indicative	ECLTV

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Rubber, natural 9006-04-6 [NATURAL RUBBER LATEX (AS INHALABLE ALLERGENIC PROTEINS)]		0,0001	Time Weighted Average (TWA):		IR_OEL
Rubber, natural 9006-04-6 [NATURAL RUBBER LATEX]		0,0001	Time Weighted Average (TWA):		IR_OEL
Ammonia, aqueous solution 1336-21-6 [AMMONIA, ANHYDROUS]	50	36	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
Ammonia, aqueous solution 1336-21-6 [AMMONIA, ANHYDROUS]	20	14	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Ammonia, aqueous solution 1336-21-6 [AMMONIA, ANHYDROUS]	50	36	Short Term Exposure Limit (STEL):	Indicative	ECLTV
Ammonia, aqueous solution 1336-21-6 [AMMONIA, ANHYDROUS]	20	14	Time Weighted Average (TWA):	Indicative	ECLTV
Thiram 137-26-8 [THIRAM (ISO)]		0,05	Time Weighted Average (TWA):		IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	aqua (freshwater)		0,01 mg/l				
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	aqua (marine water)		0,002 mg/l				
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	sewage treatment plant (STP)		100 mg/l				
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	sediment (freshwater)				426,26 mg/kg		
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	sediment (marine water)				85,25 mg/kg		
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	Soil				85,16 mg/kg		
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	oral				1,7 mg/kg		
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	Freshwater - intermittent		0,002 mg/l				
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	Marine water - intermittent		0,002 mg/l				
ammonia, aqueous solution 1336-21-6	aqua (freshwater)		0,001 mg/l				
ammonia, aqueous solution 1336-21-6	aqua (marine water)		0,001 mg/l				
ammonia, aqueous solution 1336-21-6	aqua (intermittent releases)		0,0068 mg/l				
ammonia, aqueous solution 1336-21-6	Soil				0,022 mg/kg		
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5- triy)triethanol 4719-04-4	aqua (freshwater)		0,0066 mg/l				
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5- triy)triethanol 4719-04-4	aqua (marine water)		0,00066 mg/l				
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5- triy)triethanol 4719-04-4	aqua (intermittent releases)		0,06 mg/l				
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5- triy)triethanol 4719-04-4	sediment (freshwater)				0,0304 mg/kg		
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5- triy)triethanol 4719-04-4	sediment (marine water)				0,00304 mg/kg		
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5- triy)triethanol 4719-04-4	Soil				0,00219 mg/kg		
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5- triy)triethanol 4719-04-4	sewage treatment plant (STP)		5,5 mg/l				
thiram 137-26-8	aqua (freshwater)		0,00046 mg/l				
thiram 137-26-8	sediment (freshwater)				0,047 mg/kg		
thiram 137-26-8	aqua (marine water)		0,000046 mg/l				
thiram 137-26-8	sediment (marine water)				0,0047 mg/kg		
thiram 137-26-8	Soil				0,00912 mg/kg		
thiram 137-26-8	sewage treatment plant (STP)		0,0311 mg/l				

thiram 137-26-8	oral				0,59 mg/kg		
thiram 137-26-8	aqua (intermittent releases)		0 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	Workers	dermal	Long term exposure - systemic effects		0,42 mg/kg	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	Workers	inhalation	Long term exposure - systemic effects		0,29 mg/m ³	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	General population	dermal	Long term exposure - systemic effects		0,21 mg/kg	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	General population	inhalation	Long term exposure - systemic effects		0,07 mg/m ³	
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	General population	oral	Long term exposure - systemic effects		0,04 mg/kg	
ammonia, aqueous solution 1336-21-6	Workers	dermal	Acute/short term exposure - systemic effects		6,8 mg/kg	
ammonia, aqueous solution 1336-21-6	Workers	dermal	Long term exposure - systemic effects		6,8 mg/kg	
ammonia, aqueous solution 1336-21-6	Workers	Inhalation	Acute/short term exposure - systemic effects		47,6 mg/m ³	
ammonia, aqueous solution 1336-21-6	Workers	Inhalation	Acute/short term exposure - local effects		36 mg/m ³	
ammonia, aqueous solution 1336-21-6	Workers	Inhalation	Long term exposure - systemic effects		47,6 mg/m ³	
ammonia, aqueous solution 1336-21-6	Workers	Inhalation	Long term exposure - local effects		14 mg/m ³	
ammonia, aqueous solution 1336-21-6	General population	dermal	Acute/short term exposure - systemic effects		68 mg/kg	
ammonia, aqueous solution 1336-21-6	General population	dermal	Long term exposure - systemic effects		68 mg/kg	
ammonia, aqueous solution 1336-21-6	General population	Inhalation	Acute/short term exposure - systemic effects		23,8 mg/m ³	
ammonia, aqueous solution 1336-21-6	General population	Inhalation	Acute/short term exposure - local effects		7,2 mg/m ³	
ammonia, aqueous solution 1336-21-6	General population	Inhalation	Long term exposure - systemic effects		23,8 mg/m ³	
ammonia, aqueous solution 1336-21-6	General population	Inhalation	Long term exposure - local effects		2,8 mg/m ³	
ammonia, aqueous solution 1336-21-6	General population	oral	Acute/short term exposure - systemic effects		6,8 mg/kg	
ammonia, aqueous solution 1336-21-6	General population	oral	Long term exposure - systemic effects		6,8 mg/kg	
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	Workers	inhalation	Long term exposure - local effects		0,2 mg/m ³	
thiram 137-26-8	Workers	inhalation	Long term exposure - systemic effects		0,118 mg/m ³	
thiram 137-26-8	Workers	inhalation	Acute/short term exposure - systemic effects		0,564 mg/m ³	
thiram 137-26-8	Workers	dermal	Long term exposure - systemic effects		1,6 mg/kg	
thiram 137-26-8	Workers	dermal	Acute/short term exposure -		10 mg/kg	

systemic effects

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:
Not needed.

Hand protection:

In the case of longer contact protective gloves made from nitrile rubber are recommended according to EN 374.
material thickness > 0.1 mm
Perforation time > 480 minutes

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:

Goggles which can be tightly sealed.
Protective eye equipment should conform to EN166.

Skin protection:

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	liquid
Colour	white
Odor	slightly, ammoniacal
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	0 °C (32 °F)
Initial boiling point	100 °C (212 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, The product is not flammable.
Flash point	Not applicable, No flash point up to 100°C. Aqueous preparation.
Auto-ignition temperature	> 300 °C (> 572 °F)
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	10,2
(23 °C (73 °F); Conc.: 100 % product)	
Viscosity (kinematic)	> 20,5 mm ² /s
(40 °C (104 °F);)	
Viscosity, dynamic	7.000 - 10.000 mPa.s Brookfield viscosity (LVT, RVT, HBT)
(Brookfield; Instrument: LVT; 20 °C (68 °F); speed of rotation: 12 min ⁻¹ ; Spindle No: 3)	
Solubility (qualitative)	Partially soluble
(23 °C (73.4 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable
	Mixture
Vapour pressure	23 hPa
(20 °C (68 °F))	
Density	0,94 - 0,96 g/cm ³ Density hydrometer
(23 °C (73.4 °F))	
Relative vapour density:	< 1

(20 °C)
Particle characteristics

Not applicable
Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

None known.

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
Rubber, natural 9006-04-6	LD50	2.043 - 2.210 mg/kg	rat	not specified
Rubber, natural 9006-04-6	Acute toxicity estimate (ATE)	2.043 mg/kg		Expert judgement
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5- triylo)triethanol 4719-04-4	LD50	1.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
thiram 137-26-8	LD50	1.800 mg/kg	rat	not specified

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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	LD50	> 4.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
thiram 137-26-8	LD50	> 2.000 mg/kg	rabbit	EPA OPP 81-2 (Acute Dermal Toxicity)

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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	LC50	> 165 mg/l	dust/mist	4 h	rat	not specified
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	LC50	0,371 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
thiram 137-26-8	LC50	4,42 mg/l	dust/mist	4 h	rat	EPA OPP 81-3 (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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	not irritating	4 h	rabbit	EPA Guideline
ammonia, aqueous solution 1336-21-6	corrosive		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	not irritating	4 h	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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	slightly irritating	24 h	rabbit	EPA Guideline
ammonia, aqueous solution 1336-21-6	corrosive			not specified
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5- triy)triethanol 4719-04-4	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
thiram 137-26-8	irritating		rabbit	EPA OPP 81-4 (Acute Eye Irritation)

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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
ammonia, aqueous solution 1336-21-6	not sensitising	not specified	guinea pig	not specified
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5- triy)triethanol 4719-04-4	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
thiram 137-26-8	sensitising	Split adjuvant test	guinea pig	EPA OPP 81-6 (Skin Sensitisation)

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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
ammonia, aqueous solution 1336-21-6	negative	bacterial reverse mutation assay (e.g Ames test)	not specified		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
thiram 137-26-8	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		EPA OPP 84-2 (Mutagenicity Testing)
thiram 137-26-8	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
thiram 137-26-8	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
ammonia, aqueous solution 1336-21-6	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
thiram 137-26-8	negative	oral: gavage		mouse	EU Method B.24 (Mouse Spot Test)
thiram 137-26-8	negative	oral: gavage		mouse	OECD Guideline 483 (Mammalian Spermatogonial Chromosome Aberration Test)
thiram 137-26-8	negative	intraperitoneal		mouse	EPA OPP 84-2 (Mutagenicity Testing)

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
ammonia, aqueous solution 1336-21-6	not carcinogenic	oral: feed	104 w daily	rat		OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

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
ammonia, aqueous solution 1336-21-6	NOAEL P 408 mg/kg	screening	oral: unspecified	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOAEL 500 ppm	oral: feed	90 Days Daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5- triy)triethanol 4719-04-4	NOAEL 100 mg/kg	oral: gavage	12 weeks daily, 5 d/week	rat	EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5- triy)triethanol 4719-04-4	NOAEL 64 mg/kg	oral: gavage	3 months continuously	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5- triy)triethanol 4719-04-4	NOAEL 250 mg/kg	dermal	90 d 6 h/d, 5 d/week	rat	EPA OPPTS 870.3250 (Subchronic Dermal Toxicity 90 Days)
thiram 137-26-8	NOAEL 3,5 - 4 mg/kg	oral: feed	90 d daily	rat	EU Method B.26 (Sub- Chronic Oral Toxicity Test: Repeated Dose 90- Day Oral Toxicity Study in Rodents)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of 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
Rubber, natural 9006-04-6	LC50	> 10.000 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	LC50	Toxicity > Water solubility	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOELR	Toxicity > Water solubility	34 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage toxicity test)
ammonia, aqueous solution 1336-21-6	LC50	0,16 - 1,1 mg/l	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
ammonia, aqueous solution 1336-21-6	NOEC	< 0,048 mg/l	31 d	Channel catfish	OECD Guideline 215 (Fish, Juvenile Growth Test)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	LC50	16,07 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
thiram 137-26-8	LC50	0,046 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
thiram 137-26-8	NOEC	0,0046 mg/l	33 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage 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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	EC50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
ammonia, aqueous solution 1336-21-6	EC50	25,4 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	EC50	11,9 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
thiram 137-26-8	EC50	0,21 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
Phenol, 4-methyl-, reaction	NOELR	Toxicity > Water	21 d	Daphnia magna	OECD 211 (Daphnia

products with dicyclopentadiene and isobutylene 68610-51-5		solubility			magna, Reproduction Test)
ammonia, aqueous solution 1336-21-6	NOEC	0,79 mg/l	96 h	Daphnia magna	EPA OPPTS 850.1300 (Daphnid Chronic Toxicity Test)
thiram 137-26-8	NOEC	0,04 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	NOEC	Toxicity > Water solubility	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	EC50	Toxicity > Water solubility	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
ammonia, aqueous solution 1336-21-6	EC50	> 1.000 mg/l	72 h	Skeletonema costatum	ISO 10253 (Water quality)
ammonia, aqueous solution 1336-21-6	NOEC	1.000 mg/l	72 h	Skeletonema costatum	ISO 10253 (Water quality)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	NOEC	1,56 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	EC50	6,66 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
thiram 137-26-8	EC50	1 mg/l	96 h	Chlorella pyrenoidosa	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
Rubber, natural 9006-04-6	EC 50	> 10.000 mg/l			OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	EC20	170 mg/l	30 min	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
thiram 137-26-8	EC0	> 200 mg/l			not specified

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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	not inherently biodegradable	aerobic	1 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	readily biodegradable	aerobic	> 90 - 100 %	8 d	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)
thiram 137-26-8		aerobic	20 - 40 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential

No data available.

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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	7,56	30 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
ammonia, aqueous solution 1336-21-6	-1,14		EU Method A.8 (Partition Coefficient)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	-2	24 °C	EU Method A.8 (Partition Coefficient)
thiram 137-26-8	1,73	20 °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
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene 68610-51-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
ammonia, aqueous solution 1336-21-6	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol 4719-04-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
thiram 137-26-8	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:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code

080409

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

No information available:

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	thiram CAS 137-26-8

Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
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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.
 H319 Causes serious eye irritation.
 H330 Fatal if inhaled.
 H332 Harmful if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H361d Suspected of damaging the unborn child.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.
 H413 May cause long lasting harmful effects to aquatic life.

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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