

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

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Tangit All Pressure

SDS No. : 41764 V004.0 Revision: 22.02.2018 printing date: 19.02.2021 Replaces version from: 04.04.2017

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

1.1. Product identifier

Tangit All Pressure

Contains:

Tetrahydrofuran Butanone Cyclohexanone

1.2. Relevant identified uses of the substance or mixture and uses advised against Intended use: Pipe adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Wood Lane End HP2 4RQ Hemel Hempstead

Great Britain

Phone:	+44 (1442) 278000
Fax-no.:	+44 (1442) 278071

ua-productsafety.uk@henkel.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):

Flammable liquids	Category 2
H225 Highly flammable liquid and vapor.	
Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Carcinogenicity	Category 2
H351 Suspected of causing cancer.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central Nervous System	

2.2. Label elements

Signal word:

Label elements (CLP):

Hazard pictogram:			

Danger

H225 Highly flammable liquid and vapor. Hazard statement: H315 Causes skin irritation. H318 Causes serious eye damage. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. Precautionary statement: P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe mist/vapours. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/eye protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

Solvents contained in the product evaporate during processing and their vapors can form explosive/highly inflammable air/vapor mixtures.

P310 Immediately call a POISON CENTER or doctor.

P501 Dispose of contents/container in accordance with national regulation

Pregnant women should absolutely avoid inhalation and skin contact.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description: Adhesive solution Base substances of preparation: Non-plasticized PVC in a mixture of organic solvents

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Butanone	201-159-0	20- 40 %	STOT SE 3
78-93-3	01-2119457290-43		H336
			Eye Irrit. 2
			H319
			Flam. Liq. 2
			H225
Tetrahydrofuran	203-726-8	25- 30 %	STOT SE 3
109-99-9	01-2119444314-46		H336
			Flam. Liq. 2
			H225
			STOT SE 3
			H335
			Eye Irrit. 2
			H319
			Carc. 2
			H351
			Acute Tox. 4; Oral
			H302
Cyclohexanone	203-631-1	10-< 25 %	Flam. Liq. 3
108-94-1	01-2119453616-35		H226
			Acute Tox. 4; Oral
			H302
			Acute Tox. 4; Dermal
			H312
			Acute Tox. 4
			H332
			Eye Dam. 1
			H318
			Skin Irrit. 2
			H315

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

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.

Skin contact:

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

Eye contact:

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

Ingestion:

Rinse mouth, do not induce vomiting, consult a doctor.

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

Vapors may cause drowsiness and dizziness.

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

SKIN: Redness, inflammation.

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 protective equipment. Wear self-contained breathing apparatus.

Additional information:

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid contact with skin and eyes. Wear protective equipment. 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

Ventilate working rooms thoroughly. Avoid naked flames, sparking and sources of ignition. Switch off electrical devices. Do not smoke, do not weld. Do not empty waste into waste water drains.

During processing and drying after adhesion, ventilate well. Avoid all sources of fire such as stoves and ovens. Switch off all electrical devices such as parabolic heaters, hot plates, storage heaters etc. in good time for them to have cooled down before commencing work. Avoid all sparks, including those occurring at electrical switches and devices. Avoid skin and eye contact.

Hygiene measures:

Do not eat, drink or smoke while working. Wash hands before work breaks and after finishing work. 7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container. Observe rules and measures for storage of flammable liquids. Temperatures between + 5 °C and + 35 °C Store in a cool place in closed original container. Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s) Pipe adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ррт	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Tetrahydrofuran 109-99-9	100	300	Short Term Exposure Limit (STEL):		EH40 WEL
[TETRAHYDROFURAN] Tetrahydrofuran 109-99-9			Skin designation:	Can be absorbed through the skin.	EH40 WEL
[TETRAHYDROFURAN] Tetrahydrofuran 109-99-9	50	150	Time Weighted Average (TWA):		EH40 WEL
[TETRAHYDROFURAN]			, , , , , , , , , , , , , , , , , , ,		
Tetrahydrofuran 109-99-9 [TETRAHYDROFURAN]	50	150	Time Weighted Average (TWA):	Indicative	ECTLV
Tetrahydrofuran 109-99-9 ITETRA HVDROEURANI	100	300	Short Term Exposure Limit (STEL):	Indicative	ECTLV
[TETRAHYDROFURAN] Butanone	300	899	Short Term Exposure		EH40 WEL
78-93-3 [BUTAN-2-ONE (METHYL ETHYL KETONE)]			Limit (STEL):		
Butanone 78-93-3 [BUTAN-2-ONE (METHYL ETHYL KETONE)]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Butanone 78-93-3 [BUTAN-2-ONE (METHYL ETHYL KETONE)]	200	600	Time Weighted Average (TWA):		EH40 WEL
Butanone 78-93-3 [BUTANONE]	200	600	Time Weighted Average (TWA):	Indicative	ECTLV
Butanone 78-93-3 [BUTANONE]	300	900	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Cyclohexanone 108-94-1 [CYCLOHEXANONE]			Skin designation:	Can be absorbed through the skin.	ECTLV
Cyclohexanone 108-94-1 [CYCLOHEXANONE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Cyclohexanone 108-94-1 [CYCLOHEXANONE]	20	82	Short Term Exposure Limit (STEL):		EH40 WEL
Cyclohexanone 108-94-1	10	41	Time Weighted Average (TWA):		EH40 WEL
[CYCLOHEXANONE] Cyclohexanone 108-94-1 COVCLOHEXANONE]	10	40,8	Time Weighted Average (TWA):	Indicative	ECTLV
[CYCLOHEXANONE] Cyclohexanone 108-94-1 [CYCLOHEXANONE]	20	81,6	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Polyvinyl chloride 9002-86-2 [POLYVINYL CHLORIDE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE		6	Time Weighted Average (TWA):		EH40 WEL

DUST]			
Silicon dioxide	2,4	Time Weighted Average	EH40 WEL
112945-52-5		(TWA):	
[SILICA, AMORPHOUS, RESPIRABLE			
DUST]			

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ррт	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Tetrahydrofuran	50	150	Time Weighted Average	Indicative OELV	IR_OEL
109-99-9			(TWA):		
[TETRAHYDROFURAN]	100				
Tetrahydrofuran 109-99-9	100	300	Short Term Exposure	Indicative OELV	IR_OEL
[TETRAHYDROFURAN]			Limit (STEL):		
Tetrahydrofuran			Skin designation:	Can be absorbed through the	IR_OEL
109-99-9			Skin designation.	skin.	IIC_OEE
[TETRAHYDROFURAN]					
Tetrahydrofuran	50	150	Time Weighted Average	Indicative	ECTLV
109-99-9			(TWA):		
[TETRAHYDROFURAN]					
Tetrahydrofuran	100	300	Short Term Exposure	Indicative	ECTLV
109-99-9 [TETRAHYDROFURAN]			Limit (STEL):		
	200	600	Time Weighted Avenue	Indicative OELV	IR_OEL
Butanone 78-93-3	200	600	Time Weighted Average (TWA):	Indicative OEL v	IK_OEL
[METHYL ETHYL KETONE (MEK)]			(1 11 / 12).		
Butanone	300	900	Short Term Exposure	Indicative OELV	IR_OEL
78-93-3			Limit (STEL):		
[METHYL ETHYL KETONE (MEK)]					
Butanone			Skin designation:	Can be absorbed through the	IR_OEL
78-93-3				skin.	
[METHYL ETHYL KETONE (MEK)]					
Butanone	200	600	Time Weighted Average	Indicative	ECTLV
78-93-3 [BUTANONE]			(TWA):		
Butanone	300	900	Short Term Exposure	Indicative	ECTLV
78-93-3	500	900	Limit (STEL):	mulcative	
[BUTANONE]		1	Linit (STEE).		
Cyclohexanone		1	Skin designation:	Can be absorbed through the	ECTLV
108-94-1				skin.	
[CYCLOHEXANONE]					
Cyclohexanone	10	40,8	Time Weighted Average	Indicative OELV	IR_OEL
108-94-1		1	(TWA):		
[CYCLOHEXANONE]	20	91.6	Chart Tama E		
Cyclohexanone 108-94-1	20	81,6	Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
[CYCLOHEXANONE]			Linin (STEL):		
Cyclohexanone			Skin designation:	Can be absorbed through the	IR_OEL
108-94-1		1	Sam acorgination.	skin.	
[CYCLOHEXANONE]					
Cyclohexanone	10	40,8	Time Weighted Average	Indicative	ECTLV
108-94-1			(TWA):		
[CYCLOHEXANONE]					
Cyclohexanone	20	81,6	Short Term Exposure	Indicative	ECTLV
108-94-1 [CYCLOHEXANONE]			Limit (STEL):		
		1	T:		ID OFI
Polyvinyl chloride 9002-86-2		1	Time Weighted Average (TWA):		IR_OEL
POLYVINYL CHLORIDE (PVC),					
RESPIRABLE DUST]					
Polyvinyl chloride		10	Time Weighted Average		IR_OEL
9002-86-2			(TWA):		_
[POLYVINYL CHLORIDE (PVC), TOTAL					
INHALABLE DUST]					
Silicon dioxide		6	Time Weighted Average		IR_OEL
112945-52-5			(TWA):		
INTERVAL AMODDITOLIC TOTAL					
[SILICA, AMORPHOUS, TOTAL INHALABLE DUST] Silicon dioxide		2,4	Time Weighted Average		IR_OEL

[SILICA, AMORPHOUS, RESPIRABLE			
DUST			

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
		periou	mg/l ppm		mg/kg	others	
Butanone	aqua		55,8 mg/l		00		
78-93-3	(freshwater)						
Butanone	aqua (marine		55,8 mg/l				
78-93-3	water)		_				
Butanone	aqua		55,8 mg/l				
78-93-3	(intermittent						
	releases)						
Butanone	sewage		709 mg/l				
78-93-3	treatment plant						
	(STP)						
Butanone	sediment				284,74		
78-93-3	(freshwater)				mg/kg		
Butanone	sediment				284,7		
78-93-3	(marine water)				mg/kg		
Butanone	soil				22,5 mg/kg		
78-93-3					1000		
Butanone	oral				1000		
78-93-3					mg/kg		
Tetrahydrofuran	aqua		4,32 mg/l				
109-99-9	(freshwater)						
Tetrahydrofuran	aqua (marine		0,432 mg/l				
109-99-9	water)						
Tetrahydrofuran	aqua		21,6 mg/l				
109-99-9	(intermittent						
	releases)						
Tetrahydrofuran	sewage		4,6 mg/l				
109-99-9	treatment plant						
T (1 1 C	(STP) sediment				22.2 /		
Tetrahydrofuran 109-99-9	(freshwater)				23,3 mg/kg		
Tetrahydrofuran	sediment				0.22		
109-99-9	(marine water)				2,33 mg/kg		
Tetrahydrofuran	soil				2,13 mg/kg		
109-99-9	SOIL				2,15 mg/kg		
Tetrahydrofuran	oral		-		67 mg/kg		
109-99-9	orai				07 mg/kg		
Cyclohexanone	aqua		0,0329				
108-94-1	(freshwater)		mg/l				
Cyclohexanone	aqua (marine		0,00329				
108-94-1	water)		mg/l				
Cyclohexanone	sediment				0,095		
108-94-1	(freshwater)				mg/kg		
Cyclohexanone	soil		1		0,0143		
108-94-1					mg/kg		
Cyclohexanone	sewage		10 mg/l		8		
108-94-1	treatment plant						
	(STP)						
Cyclohexanone	aqua		0,329 mg/l				
108-94-1	(intermittent						
	releases)						
Cyclohexanone	sediment				0,0512		
108-94-1	(marine water)				mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Butanone 78-93-3	Workers	dermal	Long term exposure - systemic effects		1161 mg/kg	
Butanone 78-93-3	Workers	inhalation	Long term exposure - systemic effects		600 mg/m3	
Butanone 78-93-3	General population	dermal	Long term exposure - systemic effects		412 mg/kg	
Butanone 78-93-3	General population	inhalation	Long term exposure - systemic effects		106 mg/m3	
Butanone 78-93-3	General population	oral	Long term exposure - systemic effects		31 mg/kg	
Tetrahydrofuran 109-99-9	Workers	Inhalation	Long term exposure - local effects		150 mg/m3	
Tetrahydrofuran 109-99-9	Workers	Inhalation	Long term exposure - systemic effects		150 mg/m3	
Tetrahydrofuran 109-99-9	Workers	dermal	Long term exposure - systemic effects		25 mg/kg	
Tetrahydrofuran 109-99-9	General population	Inhalation	Long term exposure - systemic effects		62 mg/m3	
Tetrahydrofuran 109-99-9	General population	dermal	Long term exposure - systemic effects		15 mg/kg	
Tetrahydrofuran 109-99-9	General population	Inhalation	Acute/short term exposure - systemic effects		150 mg/m3	
Tetrahydrofuran 109-99-9	General population	Inhalation	Acute/short term exposure - local effects		150 mg/m3	
Tetrahydrofuran 109-99-9	Workers	Inhalation	Acute/short term exposure - systemic effects		300 mg/m3	
Tetrahydrofuran 109-99-9	Workers	Inhalation	Acute/short term exposure - local effects		300 mg/m3	
Cyclohexanone 108-94-1	Workers	Inhalation	Acute/short term exposure - systemic effects		80 mg/m3	
Cyclohexanone 108-94-1	Workers	dermal	Acute/short term exposure - systemic effects		4 mg/kg	
Cyclohexanone 108-94-1	Workers	Inhalation	Acute/short term exposure - local effects		80 mg/m3	
Cyclohexanone 108-94-1	Workers	dermal	Long term exposure - systemic effects		4 mg/kg	
Cyclohexanone 108-94-1	Workers	Inhalation	Long term exposure - systemic effects		40 mg/m3	
Cyclohexanone 108-94-1	Workers	Inhalation	Long term exposure - local effects		40 mg/m3	
Cyclohexanone 108-94-1	General population	dermal	Acute/short term exposure - systemic effects		1 mg/kg	
Cyclohexanone 108-94-1	General population	Inhalation	Acute/short term exposure - systemic effects		20 mg/m3	
Cyclohexanone 108-94-1	General population	oral	Acute/short term exposure - systemic effects		1,5 mg/kg	
Cyclohexanone 108-94-1	General population	Inhalation	Acute/short term exposure - local		40 mg/m3	

			effects		
Cyclohexanone 108-94-1	General population	dermal	Long term exposure - systemic effects	1 mg/kg	
Cyclohexanone 108-94-1	General population	Inhalation	Long term exposure - systemic effects	10 mg/m3	
Cyclohexanone 108-94-1	General population	oral	Long term exposure - systemic effects	1,5 mg/kg	
Cyclohexanone 108-94-1	General population	Inhalation	Long term exposure - local effects	20 mg/m3	
Cyclohexanone 108-94-1	Workers	dermal	Acute/short term exposure - local effects	10 mg/kg	

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	 Basis of biol. exposure index	 Additional Information
Butanone 78-93-3 [BUTAN-2-ONE]	Butan-2-one	Urine	Sampling time: End of shift.	UKEH40BMG V	
Cyclohexanone 108-94-1 [CYCLOHEXANONE]	cyclohexanol	Creatinine in urine	Sampling time: End of shift.	UKEH40BMG V	

8.2. Exposure controls:

Respiratory protection: Suitable breathing mask when there is inadequate ventilation. Combination filter: ABEKP (EN 14387) This recommendation should be matched to local conditions.

Hand protection:

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s). Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

In the case of longer contact protective gloves made from butyl rubber are recommended according to EN 374. material thickness > 0.3 mm

Perforation time > 10 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 Appearance liquid

Odour threshold

pН Melting point Solidification temperature Initial boiling point Flash point Evaporation rate Flammability Explosive limits lower upper Vapour pressure Relative vapour density: Density (20°C (68 °F)) Bulk density Solubility Solubility (qualitative) (20 °C (68 °F); Solvent: Water) Partition coefficient: n-octanol/water Auto-ignition temperature Decomposition temperature Viscosity (Brookfield; 20 °C (68 °F)) Viscosity (kinematic) Explosive properties Oxidising properties

9.2. Other information

No data available / Not applicable

free-flowing, light, thixotropic colourless, slightly, turbid No data available / Not applicable

No data available / Not applicable No data available / Not applicable No data available / Not applicable 66 °C (150.8 °F) -4 °C (24.8 °F); no method No data available / Not applicable No data available / Not applicable

1,3 %(V) 12,6 %(V) No data available / Not applicable No data available / Not applicable 0,960 g/cm3

No data available / Not applicable No data available / Not applicable Partially soluble

No data available / Not applicable No data available / Not applicable No data available / Not applicable 7.000 - 15.000 mPa.s

No data available / Not applicable No data available / Not applicable No data available / Not applicable

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 toxicological effects

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
Butanone 78-93-3	LD50	2.737 mg/kg	rat	not specified
Tetrahydrofuran 109-99-9	LD50	1.650 mg/kg	rat	not specified
Cyclohexanone 108-94-1	LD50	800 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	Value	Value	Species	Method
CAS-No.	type			
Butanone 78-93-3	LD50	6.400 - 8.000 mg/kg	rabbit	not specified
Tetrahydrofuran 109-99-9	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Cyclohexanone 108-94-1	LD50	1.100 mg/kg	rabbit	not specified

Acute inhalative toxicity:

The toxicity of the product is due to its narcotic effect after inhalation. In the event of protracted or repeated exposure, damage to health cannot be excluded.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Butanone 78-93-3	LC50	> 5000 ppm		6 h	rat	not specified
Tetrahydrofuran 109-99-9	Acute toxicity estimate (ATE)	5,1 mg/l	dust/mist			Expert judgement
Tetrahydrofuran 109-99-9	LC50	> 5000 ppm			rat	EPA Guideline
Cyclohexanone 108-94-1	LC50	11 mg/l	vapour	4 h	rat	not specified

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
Butanone 78-93-3	moderately irritating		rabbit	not specified
Tetrahydrofuran 109-99-9	not irritating	72 h	rabbit	Draize Test
Cyclohexanone 108-94-1	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Butanone 78-93-3	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Cyclohexanone 108-94-1	corrosive	24 h	rabbit	BASF Test
Cyclohexanone 108-94-1	corrosive	3,5 min	Chicken, egg, in vitro assay	Hen's Egg Test – Chorioallantoic Membrane (HET-CAM)

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

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
Butanone 78-93-3	not sensitising	Guinea pig maximisation test	guinea pig	not specified
Tetrahydrofuran 109-99-9	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

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

Hazardous substances	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /	_	
		administration	Exposure time		
Butanone	negative	bacterial reverse	with and without		OECD Guideline 471
78-93-3		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)
Tetrahydrofuran	negative	bacterial reverse	with and without		OECD Guideline 471
109-99-9		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)
Tetrahydrofuran	negative	in vitro mammalian	with and without		OECD Guideline 473 (In vitro
109-99-9		chromosome			Mammalian Chromosome
		aberration test			Aberration Test)
Tetrahydrofuran	negative	mammalian cell	with and without		OECD Guideline 476 (In vitro
109-99-9		gene mutation assay			Mammalian Cell Gene
					Mutation Test)
Cyclohexanone	negative	bacterial reverse	with and without		not specified
108-94-1		mutation assay (e.g			
		Ames test)			
Tetrahydrofuran	negative	inhalation: vapour		mouse	OECD Guideline 474
109-99-9					(Mammalian Erythrocyte
					Micronucleus 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
Tetrahydrofuran	carcinogenic	inhalation:	105 w	mouse	male/female	not specified
109-99-9		vapour	5 d/w			

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
Tetrahydrofuran 109-99-9	NOAEL P 9000 ppm NOAEL F1 3000 ppm NOAEL F2 3000 ppm	Two generation study	oral: drinking water	rat	not specified

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	Species	Method
			treatment		
Butanone 78-93-3	NOAEL 2500 ppm	inhalation	90 days 6 hours/day, 5 days/week	rat	not specified
Tetrahydrofuran 109-99-9		inhalation: vapour	14 w 5 d/w	rat	not specified
Tetrahydrofuran 109-99-9	NOAEL 1.000 mg/l	oral: drinking water	4 w	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

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.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Butanone	LC50	3.220 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish,
78-93-3					Acute Toxicity Test)
Tetrahydrofuran	NOEC	216 mg/l	33 d	Pimephales promelas	
109-99-9					
Tetrahydrofuran	LC50	2.160 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish,
109-99-9					Acute Toxicity Test)
Cyclohexanone	LC50	527 - 732 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish,
108-94-1		_			Acute Toxicity Test)

Toxicity (Daphnia):

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Butanone 78-93-3	EC50	5.091 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Tetrahydrofuran 109-99-9	EC50	3.485 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cyclohexanone 108-94-1	EC50	820 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

No data available.

Toxicity (Algae):

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Butanone	EC50	> 1.000 mg/l			OECD Guideline 201 (Alga,
78-93-3					Growth Inhibition Test)
Cyclohexanone	EC50	> 100 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga,
108-94-1				_	Growth Inhibition Test)
Cyclohexanone	NOEC	100 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga,
108-94-1		-		_	Growth Inhibition Test)

Toxicity to microorganisms

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Butanone	EC 50	> 1.000 mg/l			OECD Guideline 209
78-93-3		-			(Activated Sludge,
					Respiration Inhibition Test)
Cyclohexanone	EC50	> 1.000 mg/l	30 min	activated sludge, domestic	OECD Guideline 209
108-94-1				_	(Activated Sludge,
					Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Butanone 78-93-3	readily biodegradable	aerobic	> 60 %		OECD 301 A - F
Tetrahydrofuran 109-99-9	readily biodegradable	aerobic	99 %	14 d	OECD Guideline 301 A (old version) (Ready Biodegradabiltiy: Modified AFNOR Test)
Cyclohexanone 108-94-1	readily biodegradable	aerobic	90 - 100 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Butanone 78-93-3	0,29		not specified
Tetrahydrofuran	0,45	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake
109-99-9 Cyclohexanone 108-94-1	0,86	25 °C	Flask Method) OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Butanone 78-93-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Tetrahydrofuran 109-99-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Cyclohexanone 108-94-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. 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	
	ADR RID ADN IMDG IATA	1133 1133 1133 1133 1133
14.2.	UN proper shipping name	
	ADR RID ADN IMDG IATA	ADHESIVES ADHESIVES ADHESIVES ADHESIVES Adhesives
14.3.	Transport hazard class(es)	
	ADR RID ADN IMDG IATA	3 3 3 3 3
14.4.	Packing group	
	ADR RID ADN IMDG IATA	II II II II
14.5.	Environmental hazards	
	ADR RID ADN IMDG IATA	not applicable not applicable not applicable not applicable not applicable
14.6.	Special precautions for user	
	ADR RID ADN IMDG IATA	Special provision 640D Tunnelcode: (D/E) Special provision 640D Special provision 640D not applicable not applicable
14.7.	Transport in l	oulk according to Annex II of Marpol and the IBC Code
	not applicable	

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture VOC content 77,8 %

VOC content (VOCV 814.018 VOC regulation CH)

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:

H225 Highly flammable liquid and vapor.

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

Further information:

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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.