



MATERIAL SAFETY DATA SHEET MSDS

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

PRODUCT NAME :YAPGIT HARD PVC ADHESIVE

COMPANY NAME : 404 Kimya San. ve Tic. A.Ş.
Headquarters: Merkez Mahallesi Akçe Sokak Güzle İş Merkezi
No:3 Kat:1 Şile Yolu Shell Benzin İstasyonu Yanı
Çekmeköy/ İSTANBUL
Factory: Organize San. Böl. 102 Ada 7 Parsel
Selimiye Köyü OSMANELİ/ BİLECİK
Headquarters Tel: 0216 642 92 71 Fax: 0216 642 92 75
Factory Tel: 0228 470 00 14

2. HAZARD IDENTIFICATION

1.1. Identification of the
Yapgit PVC-U, Tube/Can

Ingredients

Tetrahydrofuran
2-Butanone
Cyclohexanone

1.2. Intended and non-recommended uses of the material

Intended use:
Pipe glue

1.3. Information of the Safety Data Sheet Supplier

1.4- Emergency Telephone Number

404 kimya san.tic a.ş +90 216 6429271
National Poison Information Center 114

2.1 Classification Of The Substance Or Mixture

Classification (28848 T.C.):

Flammable liquids	Category 2
H225 Highly flammable liquid and vapor.	
Irritates skin.	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 irritation	
Specific Target Organ Toxicity (Single Exposure)	Category 3
H336 May cause drowsiness or dizziness.	
Target Organ: Central nervous system	

Classification (27092 T.C.):

R 11 Extremely flammable.
Xn - Harmful
carcinogen, category 3
R40 limited evidence for carcinogenic effects.
Xi - Irritant
R37/38 Irritating to eyes, respiratory system and skin.
R41 Risk of serious damage to eyes.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapors may cause drowsiness and dizziness.

2.1. Label Elements

Label Elements (28848 T.C.):

Hazard Signs:



Sign Phrase:

Danger

Hazard Phrase:

H225 Highly flammable liquid and vapor.
H318 Causes serious eye damage.
H315 Causes skin irritation.
H335: May cause respiratory irritation
H336 May cause drowsiness or dizziness. H351
Suspected of causing cancer.

Precautionary Statements:

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 dust/fumes/gas/mist/vapours/spray.
P 271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IN CASE OF SKIN CONTACT: Rinse thoroughly with water for a few minutes. Remove your contact lenses if you are wearing them and if they are easy to remove. Continue rinsing. Immediately call a POISON CENTER DIALING 114 or doctor/physician.

Label Elements (27092 T.C.):

F - Extremely

Xn - Harmful





Risk Phrases:

- R 11 Extremely flammable.
- R37/38 Irritating to eyes, respiratory system and skin.
- R40 limited evidence for carcinogenic effects.
- R41 Risk of serious damage to eyes.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapors may cause drowsiness and dizziness.

Safety warnings:

- S2 Keep out of reach of children.
- S9 Keep container in a well-ventilated place.
- S16 Keep away from sources of ignition - no smoking.
- S26 In case of contact with eyes, immediately wash with plenty of water and seek medical advice.
- S 36/37/39 Wear suitable protective clothing and gloves, protective goggles / mask when working.
- S46 If swallowed, seek medical advice immediately and show this container or label.
- S51 Use only in well-ventilated areas.

Ingredients

Tetrahydrofuran

2.3. Other Harms

Solvents in the product are vaporized during use and their vapors form explosive / flammable air / vapor mixtures.

Pregnant women should definitely avoid contact with skin and inhalation.

3. INFORMATION ABOUT THE COMPOSITION/INGREDIENTS

3.2. Mixtures

General chemical description:

Adhesive solution

The basic ingredients of the mixture:

Raw PVC

With organic solvents:

Information about ingredients according to Classification (28848 T.C.):

Hazardous ingredients CAS No.	EC Number	Ingredients	Classification
Tetrahydrofuran 109-99-9	203-726-8	20- 40%	Flam. Liq. 2 H225 STOT SE 3 H335 Eye Irrit. 2 H319 Carc. 2 H351
2-Bütanon 78-93-3	201-159-0	20- 40%	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336

Cyclohexanon e 108-94-1	203-631-1	10- < 25%	Flam. Liq. 3 H226 Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Acute Tox. 4 H332 Eye Dam. 1 H318 Skin Irrit. 2 H315
----------------------------	-----------	-----------	-----------------------------------------------------------------------------------------------------------------------------------------------------------

**Please see Section 16 "Other information" for descriptions of H-phrases and other abbreviations.
There are limits of exposure to unclassified substances in public work areas.**

Information about ingredients according to Classification (27092 T.C.):

Hazardous ingredients CAS No.	EC Number	Ingredients	Classification
Tetrahydrofuran 109-99-9	203-726-8	20 - 40%	F-Highly Flammable; R11, R19 Xi-Irritant; R36/37 carcinogen, category 3; R40
2-Bütanon 78-93-3	201-159-0	20 - 40%	F - Extremely flammable; R11 Xi - Irritant; R36 R66 R67
Cyclohexanon e 108-94-1	203-631-1	10 - < 25%	R10 Xn - Harmful; R20/21/22 Xi - Irritant; R38, R41

**For full text of R-phrases coded, please see Section 16 'Other Information'.
There are limits of exposure to unclassified substances in public work areas.**

4. FIRST AID

4.1. Description of first-aid measures

General information:

Seek medical advice/medical assistance in case of an adverse effect.

Inhalation:

Move the victim to fresh air, and if problem persists please seek

Skin Contact:

Wash skin with soap and water directly. Apply skin care. Remove contaminated clothing

Eye Contact:

Wash under slow running water or with eye wash item immediately (minimum 5 minutes). If there is still pain in the eyes (strong pain, photosensitivity, visual impairment) continue to wash and seek medical advice or go to hospital.

If swallowed:

Rinse the inside of the mouth. try not to induce vomiting. seek medical advice

4.2. Important acute and subsequent symptoms and effects

Eye irritation and inflammation

Inhalation: Irritation, coughing, shortness of breath, pain in chest

Skin. Redness and blistering of the skin.

Vapors may cause drowsiness and dizziness.

4.3. First symptoms for medical intervention and special treatment

See Section: Description of first-aid measures

5. FIRE FIGHTING MEASURES

5.1. Fire extinguishers

Appropriate fire extinguishing materials:

Carbon dioxide, foam, powder, water

Fire extinguishing tools to avoid due to safety reasons:

Highly pressurized water

5.2. Special hazards arising from the substance or mixture

In case of fire, carbon monoxide (CO), carbon dioxide (CO₂) can be released.
hydrogen chloride

5.3. Recommendations for fire brigades

Use of protective equipment.

Use self supplied respirators.

Additional Information:

Cool down exposed containers spraying water.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency

Ensure adequate ventilation.

Do not breathe vapors of solvents.

Avoid contact with skin and eyes.

Keep away from sources of ignition.

Anti-wear equipment.

Danger of slipping due to the spilled product.

6.2. Environmental Precautions

Do not allow spillage into sewage, surface or underground

6.3. Methods and materials for preserving and cleaning

Remove using liquid-absorbent material (sand, peat, sawdust).

Dispose of the contaminated material such as waste disposal, as set

6.4. Reference to other sections

See Section 8 to see recommendations.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Ventilate the working area effectively. Do not allow naked fire, spark and ignition sources. Turn off electrical devices.

Do not smoke or weld. Do not pour wastes into waste water.

Points to pay attention in case of working with quantities over 1 kg; good ventilation is required after processing, drying, and gluing. Sources of ignition in rooms nearby should also be removed before starting the work. E.g.; Turning off and keeping cool stove and oven fire, all electrical heaters, switching off electrical switches and prevention of electrical devices.

Avoid skin and eye contact.

Take measures to prevent the occurrence of electrostatic electricity.

Hygiene Measures:

Do not eat, drink or smoke when working.

Wash your hand before breaks and after work.

7.2. Conditions for safe storage, including incompatibility cases

Keep the product in its original sealed container.

See German Vbf-regulation.

Temperatures between + 5 ° C to + 35 ° C
 Store in a cold place and in its sealed original container.
 It should not be stored together with foodstuff and consumable materials (coffee, tea,

7.3. Specific Expiration Date
 Pipe glue

8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control Parameters

Occupational Exposure

Limits

Valid until specified date
 Turkey

Substances [The Article in Regulation]	ppm	mg/m3	Value Type	Short Term Exposure Category/Please Specify	Related Regulation/Law
Tetrahydrofuran 109-99-9 [TETRAHIDROFURAN (THF)]	200	590	Max Allowed Concentration (MAX.)		TR MAK
Tetrahydrofuran 109-99-9	100	300	Short Term Exposure Limit (STEL):		TR OEL
Tetrahydrofuran 109-99-9	50	150	Time Weighted Average (TWA):		TR OEL
Tetrahydrofuran 109-99-9			Skin Type:	Can be absorbed through the skin.	TR OEL
2-Bütanon 78-93-3 [2-BÜTANON METHYL ETHYL KETONE (MEK)]	200	590	Max Allowed Concentration (MAX.)		TR MAK
2-Bütanon 78-93-3	300	900	Short Term Exposure Limit (STEL):		TR OEL
2-Bütanon 78-93-3	200	600	Time Weighted Average (TWA):		TR OEL

Cyclohexanone 108-94-1 [CYCLOHEXANONE]	50	200	Max Allowed Concentration (MAX.)		TR MAK
Cyclohexanone 108-94-1	10	40.8	Time Weighted Average (TWA):		TR OEL
Cyclohexanone 108-94-1	20	81.6	Short Term Exposure Limit (STEL):		TR OEL
Cyclohexanone 108-94-1			Skin Type:	Can be absorbed through the skin.	TR OEL

Predicted No-Effect Concentration (PNEC):

The Name In The List	Environmental Compartment	Exposure Time	Value (%)				Comments
			mg/l	ppm	mg/kg	others	
Tetrahydrofuran 109-99-9	water (fresh water)					4,32 mg/L	
Tetrahydrofuran 109-99-9	water (sea water)					0,432 mg/L	
Tetrahydrofuran 109-99-9	water (intermittently released)					21,6 mg/L	
Tetrahydrofuran 109-99-9	STP					4,6 mg/L	
Tetrahydrofuran 109-99-9	sediment (fresh water)					23.3 mg/kg	
Tetrahydrofuran 109-99-9	sediment (sea water)					2.33 mg/kg	
Tetrahydrofuran 109-99-9	ground					2.13 mg/kg	
Tetrahydrofuran 109-99-9	orally					67 mg/kg	
2-Bütanon 78-93-3	water (fresh water)					55,8 mg/L	
2-Bütanon 78-93-3	water (sea water)					55,8 mg/L	
2-Bütanon 78-93-3	water (intermittently released)					55,8 mg/L	
2-Bütanon 78-93-3	STP					709 mg/L	
2-Bütanon 78-93-3	sediment (fresh water)					284.74 mg/kg	
2-Bütanon 78-93-3	sediment (sea water)					284.7 mg/kg	
2-Bütanon 78-93-3	ground					22.5 mg/kg	
2-Bütanon 78-93-3	orally					1000 mg/kg	

Cyclohexanone 108-94-1	water (fresh water)					0,1 mg/L	
Cyclohexanone 108-94-1	water (sea water)					0,01 mg/L	
Cyclohexanone 108-94-1	sediment (fresh water)					0.512 mg/kg	
Cyclohexanone 108-94-1	sediment (sea water)					0.0512 mg/kg	
Cyclohexanone 108-94-1	ground					0.0435 mg/kg	
Cyclohexanone 108-94-1	STP					10 mg/L	
Cyclohexanone 108-94-1	water (intermittently released)					1 mg/L	

Derived No-Effect Level (DNEL):

The Name In The List	Application Area	Route of Exposure	Health Effect	Exposure Time	Value (%)	Comments
Tetrahydrofuran 109-99-9	Staff Members	Inhalation	Long Term Exposure-Local		150 mg/m ³	
Tetrahydrofuran 109-99-9	Staff Members	Inhalation	Long Term Exposure-Systematic Effect		150 mg/m ³	
Tetrahydrofuran 109-99-9	Staff Members	dermal	Long Term Exposure-Systematic Effect		25 mg/kg	
Tetrahydrofuran 109-99-9	general population.	Inhalation	Long Term Exposure-Systematic Effect		62 mg/m ³	
Tetrahydrofuran 109-99-9	general population.	dermal	Long Term Exposure-Systematic Effect		15 mg/kg	
Tetrahydrofuran 109-99-9	general population.	Inhalation	acute/short-term exposure-systematic		150 mg/m ³	
Tetrahydrofuran 109-99-9	general population.	Inhalation	acute/short-term exposure-local effect		150 mg/m ³	
Tetrahydrofuran 109-99-9	Staff Members	Inhalation	acute/short-term exposure-systematic		300 mg/m ³	
Tetrahydrofuran 109-99-9	Staff Members	Inhalation	acute/short-term exposure-local effect		300 mg/m ³	
2-Bütanon 78-93-3	Staff Members	dermal	Long Term Exposure-Systematic Effect		1161 mg/kg VA/day	
2-Bütanon 78-93-3	Staff Members	Inhalation	Long Term Exposure-Systematic Effect		600 mg/m ³	
2-Bütanon 78-93-3	general population.	dermal	Long Term Exposure-Systematic Effect		412 mg/kg VA/day	
2-Bütanon 78-93-3	general population.	Inhalation	Long Term Exposure-Systematic Effect		106 mg/m ³	
2-Bütanon 78-93-3	general population.	orally	Long Term Exposure-Systematic Effect		31 mg/kg VA/day	
Cyclohexanone 108-94-1	Staff Members	Inhalation	acute/short-term exposure-systematic		80 mg/m ³	
Cyclohexanone 108-94-1	Staff Members	dermal	acute/short-term exposure-systematic		4 mg/kg VA/day	
Cyclohexanone 108-94-1	Staff Members	Inhalation	acute/short-term exposure-local effect		80 mg/m ³	

Cyclohexanone 108-94-1	Staff Members	dermal	Long Term Exposure-Systematic Effect		4 mg/kg VA/day	
Cyclohexanone 108-94-1	Staff Members	Inhalation	Long Term Exposure-Systematic Effect		40 mg/m ³	
Cyclohexanone 108-94-1	Staff Members	Inhalation	Long Term Exposure-Local		40 mg/m ³	
Cyclohexanone 108-94-1	general population.	dermal	acute/short-term exposure-systematic		1 mg/kg VA/day	
Cyclohexanone 108-94-1	general population.	Inhalation	acute/short-term exposure-systematic		20 mg/m ³	
Cyclohexanone 108-94-1	general population.	orally	acute/short-term exposure-systematic		1,5 mg/kg food	
Cyclohexanone 108-94-1	general population.	Inhalation	acute/short-term exposure-local effect		40 mg/m ³	
Cyclohexanone	general population.	dermal	Long Term Exposure		1 mg/kg VA/day	

108-94-1			Lasting-Systematic Effect			
Cyclohexanone 108-94-1	general population.	Inhalation	Long Term Exposure-Systematic Effect		10 mg/m ³	
Cyclohexanone 108-94-1	general population.	orally	Long Term Exposure-Systematic Effect		1,5 mg/kg food	
Cyclohexanone 108-94-1	general population.	Inhalation	Long Term Exposure-Local Effect		20 mg/m ³	

Biological Limits:

none

8.1 Exposure controls:

Protection of Respiratory Tract:

Appropriate respirator, in the absence of adequate ventilation

Filter Combination: ABEKP

This recommendation should be adapted to local conditions.

Hand protection:

Nitrile rubber gloves should be used (material thickness > 0,1 mm, overflow time < 30s). Gloves should be replaced after each contact with the product. Appropriate gloves can be obtained from pharmacies or from places selling laboratory equipment.

Protective gloves made of butyl rubber compliant with EN 374 are recommended in case of extended period of contact.
material thickness > 0.7 mm

Overflow time: more than 240 minutes

Regarding long-term and repetitive contact, it should be kept in mind that the above-mentioned permeability times may be much shorter in practice than those specified in EN 374. In any case, the suitability of the protective glove for work (i.e. mechanical and thermal stability, compatibility with the product, antistatic properties etc.) should be checked. The protection glove must be replaced immediately upon first signs of wear. In all cases, the glove manufacturer's data and the relevant BG rules must be complied with. We recommend that you prepare a hand care plan tailored to your custom business requirements in cooperation with the glove manufacturer and the profession group.

Eye Protection:

Use close-fit protective

Skin protection:

Suitable protective

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid Fluid, Light, Thixotropic Colorless, Slightly
Odor Starting Point	No information available / Not applicable / Not suitable
pH	No information available / Not applicable / Not suitable
Boiling point	66 °C (150.8 °F)
Flash point	-4 °C (24.8 °F); no method
Decomposition Temperature	No information available / Not applicable / Not suitable
Vapor Pressure	No information available / Not applicable / Not suitable
Density (20 °C (68 °F))	0.960 g/cm ³
Volume Weight	No information available / Not applicable / Not suitable
Viscosity (Brookfield; 20 °C (68 °F))	7.000 - 15.000 mpa.s
Viscosity (kinematic)	No information available / Not applicable / Not suitable
Explosive Properties	No information available / Not applicable / Not suitable
Solubility (qualitative)	partially soluble
(20 °C (68 °F); Solvent: Water)	
Solidification Temperature	No information available / Not applicable / Not suitable
Melting point	No information available / Not applicable / Not suitable
Flammability	No information available / Not applicable / Not suitable
Auto-ignition Temperature	No information available / Not applicable / Not suitable
Lower Flammability Limit Upper	1,3 %(V) 12,6 %(V)
Decomposition coefficient: n-octanol/water	No information available / Not applicable / Not suitable
Evaporation Rate	No information available / Not applicable / Not suitable
Vapor Density	No information available / Not applicable / Not suitable
Oxidizing Properties	No information available / Not applicable / Not suitable

9.2 Other Information

No information available / Not applicable / Not suitable

10. STABILITY AND REACTIVITY

10.1. Reactivity

None when used in accordance with intended

10.2. Chemical Stability

Stable under recommended storage conditions.

10.3. Hazardous Reaction

See Reactivity Section.

10.4. Conditions to Avoid

None when used in accordance with intended

10.5. Materials To Avoid

None when used properly.

10.6. Hazardous Decomposition Products

In case of fire, carbon monoxide (CO), carbon dioxide (CO₂) can be
Hydrochloric acid steam can be possibly released in case of fire.

11. TOXICOLOGICAL INFORMATION

11.1. Information About Toxic Effects

General Toxicological Information

Mixture is classified according to Annex-I of T.C.28848. Valid for chemical listed in Section 3 health/ecological information

STOT - single exposure

May cause respiratory irritation.
May cause drowsiness or dizziness.

Poisoning by Inhalation:

The toxicity of the product is due to post-respiratory narcotic effects.
In case of prolonged and repeated exposure, the damage to health cannot be ignored.

Skin Irritation:

May cause irritation on skin.

Eye Irritation:

Causes serious damage to eyes.

Carcinogen:

Suspected of causing cancer

Acute Oral Toxicity:

Hazardous Ingredients CAS No.	Value Type	Value (%)	Application Method	Exposure Time	Types	Method
Tetrahydrofuran 109-99-9	LD50	4,430 mg/kg	oral		rat	BASF Test
2-Bütanon 78-93-3	Acute toxicity estimate (ATE)	2,600 mg/kg	oral			Expert's Opinion
2-Bütanon 78-93-3	LD50	2,600 - 5,400 mg/kg			rat	
Cyclohexanone 108-94-1	LD50	800 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute Inhalation Toxicity:

Hazardous Ingredients CAS No.	Value Type	Value (%)	Application Method	Exposure Time	Types	Method
--------------------------------------	-------------------	------------------	---------------------------	----------------------	--------------	---------------

Tetrahydrofuran 109-99-9	Acute toxicity estimate (ATE)	5.1 mg/l	Aerosol			Expert's Opinion
Tetrahydrofuran 109-99-9	LC50	> 5000 ppm	Inhalation		rat	EPA Guideline
2-Bütanon 78-93-3	LC50	> 5000 ppm		6 h	rat	

Acute Dermal Toxicity:

Hazardous Ingredients CAS No.	Value Type	Value (%)	Application Method	Exposure Time	Types	Method
Tetrahydrofuran 109-99-9	LD50	> 2,000 mg/kg	Dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
2-Bütanon 78-93-3	LD50	6,400 - 8,000 mg/kg	Dermal		Rabbit	

Skin Corrosion/Irritation:

Hazardous Ingredients CAS No.	Result	Exposure Time	Types	Method
Tetrahydrofuran 109-99-9	Not irritant	72 h	Rabbit	Draize Test
2-Bütanon 78-93-3	Moderately irritating		Rabbit	
Cyclohexanone 108-94-1	corrosive		Rabbit	

Serious Eye Damage/Irritation:

Hazardous Ingredients CAS No.	Result	Exposure Time	Types	Method
2-Bütanon 78-93-3	irritating		Rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Cyclohexanone 108-94-1	irritating		Rabbit	

Respiratory System And Skin Sensitization:

Hazardous Ingredients CAS No.	Result	Test Type	Types	Method
Tetrahydrofuran 109-99-9	Does not cause sensitization	Local Lymph Node Assay (LLNA)	rat	OECD Guideline 429 (Skin Sensitization: Local Lymph Node Assay)
2-Bütanon 78-93-3	Does not cause sensitization	Guinea pig maximization test	guinea pig	

Reproductive Cell Mutagenity:

Hazardous Ingredients CAS No.	Result	Inspection Type / Route Of Administration	Metabolic Activation / Exposure Time	Types	Method
Tetrahydrofuran 109-99-9	Negative	Mammalian Cell Gene Mutation Test	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Tetrahydrofuran 109-99-9	Negative	inhalation:vapor		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2-Bütanon 78-93-3	Negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cyclohexanone 108-94-1	Negative	bacterial reverse mutation assay (e.g Ames test)	with and without		

Carcinogen:

Hazardous Ingredients CAS No.	Result	Types	Sex	Exposure Time Frequency of Treatment	Applicatio n Method	Method
Tetrahydrofuran 109-99-9	Carcinogen	rat	male/female	105 w 5 d/w	inhalation:vapor	

Toxicity for Repeated Doses:

Hazardous Ingredients CAS No.	Result	Applicatio n Method	Exposure Time / Frequency of Treatment	Types	Method
Tetrahydrofuran 109-99-9		inhalation:vapor	14 w5 d/w	rat	
Tetrahydrofuran 109-99-9	NOAEL=1.000 mg/l	orally: drinking water	4 w	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
2-Bütanon 78-93-3	NOAEL=2500 ppm	Inhalation	90 days 6 hours/day, 5 days/week	rat	
2-Butanone 78-93-3	LOAEL=5000 ppm	Inhalation	90 days 6 hours/day, 5 days/week	rat	

12. ECOLOGICAL INFORMATION

General ecological information:

Mixture is classified according to Annex-I of T.C.28848. Valid for chemical listed in Section 3 health/ecological information

Do not pour into sewers, soil or water.

12.1. Toxicity

Hazardous ingredients CAS No.	Value Type	Value (%)	Acute toxicity research	Exposure Time	Types	Method
109-99-9 Tetrahydrofuran	NOEC	216 mg/l	Fish	33 days	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
	LC50	2,160 mg/l	Fish	96 h	Pimephales promelas	
	NOEC	216 mg/l	Fish	33 days	Pimephales promelas	
	LC50	2,160 mg/l	Fish	96 h	Pimephales promelas	
109-99-9 Tetrahydrofuran	EC50	3,485 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Bütanon 78-93-3	LC50	3,220 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
	LC50	3,220 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Bütanon 78-93-3	EC50	5,091 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Bütanon 78-93-3	EC50	> 1,000 mg/l	Algae			OECD Guideline 201 (Alga. Growth Inhibition Test)
2-Bütanon 78-93-3	EC50	> 1,000 mg/l	Bacteria			OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
108-94-1 Cyclohexanone	LC50	619 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
	LC50	619 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
108-94-1 Cyclohexanone	EC50	820 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 201 (Alga. Growth Inhibition Test)
108-94-1 Cyclohexanone	EC50	> 370 mg/l	Algae	8 days	Scenedesmus quadricauda	OECD Guideline 201 (Alga. Growth Inhibition Test)
108-94-1 Cyclohexanone	EC10	180 mg/l	Bacteria	16 h		DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test)

12.2. Persistence And Degradability

Hazardous ingredients CAS No.	Result	Application Method	Degradability:	Method
Tetrahydrofuran 109-99-9	easily biodegradable	aerob	99%	OECD Guideline 301 A (old version) (Ready Biodegradability: Modified AFNOR Test)
2-Bütanon 78-93-3	easily biodegradable	aerob	> 60%	OECD 301 A - F
Cyclohexanone 108-94-1	easily biodegradable	aerob	77%	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)

12.3. Bioaccumulation potential/12.4. Mobility in soil

Hazardous ingredients CAS No.	LogKow	Bio-concentration factor (BCF)	Exposure Time	Types	Temperature	Method
Tetrahydrofuran 109-99-9	0.45				25 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
2-Bütanon 78-93-3	0.29					
Cyclohexanone 108-94-1	0.86				25 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)

12.5. Results of the PBT and vPvB assessment

Hazardous ingredients CAS No.	PBT/vPvB
Tetrahydrofuran 109-99-9	Not Persistent. Bioaccumulating and Toxic (PBT), Very Persistent And Very Bioaccumulating (vPvB).
2-Bütanon 78-93-3	Not Persistent. Bioaccumulating and Toxic (PBT), Very Persistent And Very Bioaccumulating (vPvB).

12.6. Other Adverse Effects

No information available

13. DISPOSAL INFORMATION

13.1. Waste treatment methods

Disposal Of The Product:

Dispose of wastes and residues according to local authority and administrative

Disposal Of Uncleaned Packaging:

Use packages in recycling only if they are completely empty.

Waste Code:
080409

14. TRANSPORT INFORMATION

14.1. UN Number

ADR 1133
RID 1133
ADN 1133
IMDG 1133
IATA 1133

14.2. Proper UN Transportation

ADR ADHESIVES
RID ADHESIVES
ADN ADHESIVES
IMDG ADHESIVES
IATA Adhesives

14.3. Transportation Hazard Class(es)

ADR 3
RID 3
ADN 3

IMDG	3
IATA	3

14.4. Packaging Group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental

ADR	Not applicable / Not suitable
RID	Not applicable / Not suitable
ADN	Not applicable / Not suitable
IMDG	Not applicable / Not suitable
IATA	Not applicable / Not suitable

14.6. Special precautions for the

ADR	Special Supply 640D Tunnel code: (D/E)
RID	Special Supply 640D
ADN	Special Supply 640D
IMDG	Not applicable / Not suitable
IATA	Not applicable / Not suitable

14.7. Bulk transportation according to MARPOL 73/78 Annex II and

Not applicable / Not suitable

15 . LEGISLATION INFORMATION

15.1 Safety, health and environment legislation specific to the substance and the mixture

UOK content (1999/13/EC) (CH) 77.57%

15.2. Chemical safety assessments

No chemical safety assessment has been made.

16. OTHER INFORMATION

Information on the marking of the product is given in Section 2. Long texts for all abbreviations specified with codes are as follows;

R10 Flammable.
R 11 Extremely flammable.
R19 Explosive peroxides can occur.
R20/21/22 harmful by inhalation, in contact with skin and if swallowed.
R36 Irritating to eyes.
R36/37 Irritating to eyes and respiratory system.
R38 Irritating to skin.
R40 limited evidence for carcinogenic effects.
R41 Risk of serious damage to eyes.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapors may cause drowsiness and dizziness.
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.

Additional Information:

This information is based on our current level of knowledge and all information is related to the conditions of the product at the delivery of it. The product is attempted to be defined in terms of safety requirements and the information is not intended. The changes in the product safety form are indicated vertically on the left-hand side. Changes are also highlighted in a different color or shaded area.