

TIGACOL ΘΕΡΜΟΚΟΛΛΑ

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** TIGACOL ΘΕΡΜΟΚΟΛΛΑ
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Adhesive. For professional user/industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
EFSTATHIOS TIGKAS & CO. EE
PEFKON (PAR. AGIOU POLYKARPOU 49)
11855 ATHENS - GREECE
Phone. +302103458549 - Fax +302103474901
Stathistigas1970@gmail.com, www.tigacol.gr
- 1.4 Emergency telephone number:** +302107793777

SECTION 2: HAZARDS IDENTIFICATION **

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411
Carc. 2: Carcinogenicity, Category 2, H351
Eye Irrit. 2: Eye irritation, Category 2, H319
Flam. Liq. 2: Flammable liquids, Category 2, H225
Repr. 2: Reproductive toxicity, Category 2, H361f
Repr. 2: Reproductive toxicity, Category 2, H361d
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT RE 2: Specific target organ toxicity, repeated exposure, Category 2, H373
STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger



Hazard statements:

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
Carc. 2: H351 - Suspected of causing cancer
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 2: H225 - Highly flammable liquid and vapour
Repr. 2: H361f - Suspected of damaging fertility.
Repr. 2: H361d - Suspected of damaging the unborn child.
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure
STOT SE 3: H336 - May cause drowsiness or dizziness

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of water
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P370+P378: In case of fire: Use ABC powder extinguisher to extinguish
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively

** Changes with regards to the previous version

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SECTION 2: HAZARDS IDENTIFICATION ** (continued)

Supplementary information:

EUH208: Contains Methylols. May produce an allergic reaction

Substances that contribute to the classification

Acetone; n-hexane; Toluene; Dichloromethane

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

** Changes with regards to the previous version

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of additives, pigments and resins in solvents

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 67-64-1 EC: 200-662-2 Index: 606-001-00-8 REACH: 01-2119471330-49-XXXX	Acetone⁽¹⁾ Regulation 1272/2008	ATP CLP00 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger	24 - <27 %
CAS: 110-54-3 EC: 203-777-6 Index: 601-037-00-0 REACH: 01-2119480412-44-XXXX	n-hexane⁽¹⁾ Regulation 1272/2008	ATP CLP00 Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 2: H225; Repr. 2: H361f; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H336 - Danger	19 - <24 %
CAS: 108-88-3 EC: 203-625-9 Index: 601-021-00-3 REACH: 01-2119471310-51-XXXX	Toluene⁽¹⁾ Regulation 1272/2008	ATP CLP00 Asp. Tox. 1: H304; Flam. Liq. 2: H225; Repr. 2: H361d; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H336 - Danger	19 - <24 %
CAS: 75-09-2 EC: 200-838-9 Index: 602-004-00-3 REACH: 01-2119480404-41-XXXX	Dichloromethane⁽¹⁾ Regulation 1272/2008	ATP CLP00 Carc. 2: H351 - Warning	4,9 - <9,9 %
CAS: Non-applicable EC: 921-024-6 Index: Non-applicable REACH: 01-2119475514-35-XXXX	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane⁽¹⁾ Regulation 1272/2008	Self-classified Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 2: H225; Skin Irrit. 2: H315; STOT SE 3: H336; EUH066 - Danger	2,4 - <4,9 %
CAS: 1330-20-7 EC: 215-535-7 Index: 601-022-00-9 REACH: 01-2119488216-32-XXXX	Xylene⁽²⁾ Regulation 1272/2008	ATP CLP00 Acute Tox. 4: H312+H332; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Warning	0,24 - <0,9 %
CAS: Non-applicable EC: Non-applicable Index: Non-applicable REACH: Non-applicable	Methylols⁽¹⁾ Regulation 1272/2008	Self-classified Skin Sens. 1: H317 - Warning	0,09 - <0,24 %
CAS: 100-41-4 EC: 202-849-4 Index: 601-023-00-4 REACH: 01-2119489370-35-XXXX	Ethylbenzene⁽²⁾ Regulation 1272/2008	Self-classified Acute Tox. 4: H332; Aquatic Chronic 3: H412; Asp. Tox. 1: H304; Flam. Liq. 2: H225; STOT RE 2: H373 - Danger	<0,09 %

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

⁽²⁾ Substance with a Union workplace exposure limit

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

** Changes with regards to the previous version

SECTION 4: FIRST AID MEASURES

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SECTION 4: FIRST AID MEASURES (continued)

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂). IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in designated areas that comply with the necessary safety conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to small amounts only. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

Identification		Environmental limits		
Acetone CAS: 67-64-1 EC: 200-662-2		IOELV (8h)	500 ppm	1210 mg/m ³
		IOELV (STEL)		
n-hexane CAS: 110-54-3 EC: 203-777-6		IOELV (8h)	20 ppm	72 mg/m ³
		IOELV (STEL)		
Toluene CAS: 108-88-3 EC: 203-625-9		IOELV (8h)	50 ppm	192 mg/m ³
		IOELV (STEL)	100 ppm	384 mg/m ³
Dichloromethane CAS: 75-09-2 EC: 200-838-9		IOELV (8h)	100 ppm	353 mg/m ³
		IOELV (STEL)	200 ppm	706 mg/m ³
Xylene CAS: 1330-20-7 EC: 215-535-7		IOELV (8h)	50 ppm	221 mg/m ³
		IOELV (STEL)	100 ppm	442 mg/m ³
Ethylbenzene CAS: 100-41-4 EC: 202-849-4		IOELV (8h)	100 ppm	442 mg/m ³
		IOELV (STEL)	200 ppm	884 mg/m ³

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Acetone CAS: 67-64-1 EC: 200-662-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	186 mg/kg	Non-applicable
	Inhalation	Non-applicable	2420 mg/m ³	1210 mg/m ³	Non-applicable
n-hexane CAS: 110-54-3 EC: 203-777-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	11 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	75 mg/m ³	Non-applicable
Toluene CAS: 108-88-3 EC: 203-625-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	384 mg/kg	Non-applicable
	Inhalation	384 mg/m ³	384 mg/m ³	192 mg/m ³	192 mg/m ³
Dichloromethane CAS: 75-09-2 EC: 200-838-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	4750 mg/kg	Non-applicable
	Inhalation	706 mg/m ³	Non-applicable	353 mg/m ³	Non-applicable
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS: Non-applicable EC: 921-024-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	773 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2035 mg/m ³	Non-applicable
Xylene CAS: 1330-20-7 EC: 215-535-7	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
	Inhalation	289 mg/m ³	289 mg/m ³	77 mg/m ³	Non-applicable
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
	Inhalation	Non-applicable	293 mg/m ³	77 mg/m ³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Acetone CAS: 67-64-1 EC: 200-662-2	Oral	Non-applicable	Non-applicable	62 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	62 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	200 mg/m ³	Non-applicable
n-hexane CAS: 110-54-3 EC: 203-777-6	Oral	Non-applicable	Non-applicable	4 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	5,3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	16 mg/m ³	Non-applicable
Toluene CAS: 108-88-3 EC: 203-625-9	Oral	Non-applicable	Non-applicable	8,13 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	226 mg/kg	Non-applicable
	Inhalation	226 mg/m ³	226 mg/m ³	56,5 mg/m ³	56,5 mg/m ³
Dichloromethane CAS: 75-09-2 EC: 200-838-9	Oral	Non-applicable	Non-applicable	0,06 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	2395 mg/kg	Non-applicable
	Inhalation	353 mg/m ³	Non-applicable	88,3 mg/m ³	Non-applicable
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS: Non-applicable EC: 921-024-6	Oral	Non-applicable	Non-applicable	699 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	699 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	608 mg/m ³	Non-applicable
Xylene CAS: 1330-20-7 EC: 215-535-7	Oral	Non-applicable	Non-applicable	1,6 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	108 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	14,8 mg/m ³	Non-applicable
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	Oral	Non-applicable	Non-applicable	1,6 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	15 mg/m ³	Non-applicable

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

PNEC:

Identification				
Acetone CAS: 67-64-1 EC: 200-662-2	STP	100 mg/L	Fresh water	10,6 mg/L
	Soil	29,5 mg/kg	Marine water	1,06 mg/L
	Intermittent	21 mg/L	Sediment (Fresh water)	30,4 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	3,04 mg/kg
Toluene CAS: 108-88-3 EC: 203-625-9	STP	13,61 mg/L	Fresh water	0,68 mg/L
	Soil	2,89 mg/kg	Marine water	0,68 mg/L
	Intermittent	0,68 mg/L	Sediment (Fresh water)	16,39 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	16,39 mg/kg
Dichloromethane CAS: 75-09-2 EC: 200-838-9	STP	26 mg/L	Fresh water	0,54 mg/L
	Soil	0,583 mg/kg	Marine water	0,194 mg/L
	Intermittent	0,27 mg/L	Sediment (Fresh water)	4,47 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	1,61 mg/kg
Xylene CAS: 1330-20-7 EC: 215-535-7	STP	6,58 mg/L	Fresh water	0,327 mg/L
	Soil	2,31 mg/kg	Marine water	0,327 mg/L
	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	12,46 mg/kg
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	STP	9,6 mg/L	Fresh water	0,1 mg/L
	Soil	2,68 mg/kg	Marine water	0,01 mg/L
	Intermittent	0,1 mg/L	Sediment (Fresh water)	13,7 mg/kg
	Oral	20 g/kg	Sediment (Marine water)	1,37 mg/kg

8.2 Exposure controls:

A.- General security and hygiene measures in the work place

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	 CAT III	EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves	 CAT III	EN ISO 374-1:2016 EN 16523-1:2015 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"

D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield	 CAT II	EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties	 CAT III	EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties	 CAT III	EN ISO 13287:2012 EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	78,36 % weight
V.O.C. density at 20 °C:	671,01 kg/m ³ (671,01 g/L)
Average carbon number:	4,82
Average molecular weight:	79,06 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Viscous
Colour:	 Yellow
Odour:	Characteristic
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	66 °C
Vapour pressure at 20 °C:	19268 Pa
Vapour pressure at 50 °C:	63833,92 Pa (63,83 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	856,4 kg/m ³
Relative density at 20 °C:	0,856
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	>20,5 cSt

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	-14 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	234 °C
Lower flammability limit:	Not available
Upper flammability limit:	Not available

Explosive:

Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *

9.2 Other information:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION **

11.1 Information on toxicological effects:

** Changes with regards to the previous version

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SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
IARC: Toluene (3); Dichloromethane (2A); Polychloroprene (3); Xylene (3); Ethylbenzene (2B); Formaldehyde (1)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Suspected of damaging the unborn child.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
n-hexane CAS: 110-54-3 EC: 203-777-6	LD50 oral	5100 mg/kg	Mouse
	LD50 dermal	3000 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L (4 h)	

**** Changes with regards to the previous version**

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SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

Identification	Acute toxicity		Genus
Acetone CAS: 67-64-1 EC: 200-662-2	LD50 oral	5800 mg/kg	Rat
	LD50 dermal	7426 mg/kg	Rabbit
	LC50 inhalation	76 mg/L (4 h)	Rat
Toluene CAS: 108-88-3 EC: 203-625-9	LD50 oral	5580 mg/kg	Rat
	LD50 dermal	12124 mg/kg	Rat
	LC50 inhalation	28,1 mg/L (4 h)	Rat
Dichloromethane CAS: 75-09-2 EC: 200-838-9	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	86 mg/L (4 h)	Rat
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS: Non-applicable EC: 921-024-6	LD50 oral	5840 mg/kg	Rat
	LD50 dermal	2920 mg/kg	Rat
	LC50 inhalation	>20 mg/L (4 h)	
Xylene CAS: 1330-20-7 EC: 215-535-7	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation	>20 mg/L	
Methylols CAS: Non-applicable EC: Non-applicable	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	Non-applicable	
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	LD50 oral	3500 mg/kg	Rat
	LD50 dermal	15354 mg/kg	Rabbit
	LC50 inhalation	17,2 mg/L (4 h)	Rat

** Changes with regards to the previous version

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
Acetone CAS: 67-64-1 EC: 200-662-2	LC50	5540 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	23.5 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	3400 mg/L (48 h)	Chlorella pyrenoidosa	Algae
n-hexane CAS: 110-54-3 EC: 203-777-6	LC50	4 mg/L (96 h)	Carassius auratus	Fish
	EC50	Non-applicable		
	EC50	Non-applicable		
Toluene CAS: 108-88-3 EC: 203-625-9	LC50	13 mg/L (96 h)	Carassius auratus	Fish
	EC50	11.5 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	125 mg/L (48 h)	Scenedesmus subspicatus	Algae
Dichloromethane CAS: 75-09-2 EC: 200-838-9	LC50	330 mg/L (96 h)	Pimephales promelas	Fish
	EC50	270 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	2300 mg/L (3 h)	Chlorella vulgaris	Algae
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS: Non-applicable EC: 921-024-6	LC50	5.1 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	Non-applicable		
	EC50	Non-applicable		
Xylene CAS: 1330-20-7 EC: 215-535-7	LC50	13.5 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	3.4 mg/L (48 h)	Ceriodaphnia dubia	Crustacean
	EC50	10 mg/L (72 h)	Skeletonema costatum	Algae
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	LC50	42.3 mg/L (96 h)	Pimephales promelas	Fish
	EC50	75 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	63 mg/L (3 h)	Chlorella vulgaris	Algae

12.2 Persistence and degradability:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
Acetone CAS: 67-64-1 EC: 200-662-2	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	0.96	% Biodegradable	96 %
n-hexane CAS: 110-54-3 EC: 203-777-6	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %
Toluene CAS: 108-88-3 EC: 203-625-9	BOD5	2.5 g O ₂ /g	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %
Dichloromethane CAS: 75-09-2 EC: 200-838-9	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	13 %
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane CAS: Non-applicable EC: 921-024-6	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	98 %
Xylene CAS: 1330-20-7 EC: 215-535-7	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	88 %
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	90 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Acetone CAS: 67-64-1 EC: 200-662-2	BCF	1
	Pow Log	-0.24
	Potential	Low
n-hexane CAS: 110-54-3 EC: 203-777-6	BCF	542
	Pow Log	3.9
	Potential	High
Toluene CAS: 108-88-3 EC: 203-625-9	BCF	13
	Pow Log	2.73
	Potential	Low
Dichloromethane CAS: 75-09-2 EC: 200-838-9	BCF	6
	Pow Log	1.25
	Potential	Low
Xylene CAS: 1330-20-7 EC: 215-535-7	BCF	9
	Pow Log	2.77
	Potential	Low
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	BCF	1
	Pow Log	3.15
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Acetone CAS: 67-64-1 EC: 200-662-2	Koc	1	Henry	2,93 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2,304E-2 N/m (25 °C)	Moist soil	Yes
n-hexane CAS: 110-54-3 EC: 203-777-6	Koc	150	Henry	185425 Pa·m ³ /mol
	Conclusion	High	Dry soil	Yes
	Surface tension	1,798E-2 N/m (25 °C)	Moist soil	Yes
Toluene CAS: 108-88-3 EC: 203-625-9	Koc	178	Henry	672,8 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	2,793E-2 N/m (25 °C)	Moist soil	Yes

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TIGACOL ΘΕΡΜΟΚΟΛΛΑ

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
Dichloromethane CAS: 75-09-2 EC: 200-838-9	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2,877E-2 N/m (25 °C)	Moist soil	Non-applicable
Xylene CAS: 1330-20-7 EC: 215-535-7	Koc	202	Henry	524,86 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	Non-applicable	Moist soil	Yes
Ethylbenzene CAS: 100-41-4 EC: 202-849-4	Koc	520	Henry	798,44 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	2,859E-2 N/m (25 °C)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP7 Carcinogenic, HP10 Toxic for reproduction, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:



- | | |
|---|---------------------------------------|
| 14.1 UN number: | UN1133 |
| 14.2 UN proper shipping name: | ADHESIVES containing flammable liquid |
| 14.3 Transport hazard class(es): | 3 |
| Labels: | 3 |
| 14.4 Packing group: | II |
| 14.5 Environmental hazards: | Yes |
| 14.6 Special precautions for user | |
| Special regulations: | 640D |
| Tunnel restriction code: | D/E |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 5 L |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

Transport of dangerous goods by sea:

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TIGACOL ΘΕΡΜΟΚΟΛΛΑ

SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IMDG 38-16:

 	14.1 UN number:	UN1133
	14.2 UN proper shipping name:	ADHESIVES containing flammable liquid
	14.3 Transport hazard class(es):	3
	Labels:	3
	14.4 Packing group:	II
	14.5 Environmental hazards:	Yes
	14.6 Special precautions for user	
	Special regulations:	Non-applicable
	EmS Codes:	F-E, S-D
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
	Segregation group:	Non-applicable
	14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

 	14.1 UN number:	UN1133
	14.2 UN proper shipping name:	ADHESIVES containing flammable liquid
	14.3 Transport hazard class(es):	3
	Labels:	3
	14.4 Packing group:	II
	14.5 Environmental hazards:	Yes
	14.6 Special precautions for user	
	Physico-Chemical properties:	see section 9
	14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c		5000	50000
E2		200	500

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

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SECTION 15: REGULATORY INFORMATION (continued)

Contains more than 0.1 % of Toluene by weight. Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.

Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:

- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- "whoopie" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

'For professional users only'.

Regulation (EU) No 98/2013 of the European Parliament and of the Council of 15 January 2013 on the marketing and use of explosives precursors: Contains Acetone. Product under the provisions of Article 9

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11):

- New declared substances
Methylols
- Removed substances
Cyclohexanone (108-94-1)
Toluene (108-88-3)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Supplementary information

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation
H336: May cause drowsiness or dizziness
H373: May cause damage to organs through prolonged or repeated exposure
H411: Toxic to aquatic life with long lasting effects
H361f: Suspected of damaging fertility.
H361d: Suspected of damaging the unborn child.
H351: Suspected of causing cancer
H225: Highly flammable liquid and vapour
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:

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TIGACOL ΘΕΡΜΟΚΟΛΛΑ

SECTION 16: OTHER INFORMATION (continued)

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled
Acute Tox. 4: H332 - Harmful if inhaled
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Carc. 2: H351 - Suspected of causing cancer
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 2: H225 - Highly flammable liquid and vapour
Flam. Liq. 3: H226 - Flammable liquid and vapour
Repr. 2: H361d - Suspected of damaging the unborn child.
Repr. 2: H361f - Suspected of damaging fertility.
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation)
STOT SE 3: H336 - May cause drowsiness or dizziness

Classification procedure:

Skin Irrit. 2: Calculation method
STOT SE 3: Calculation method
STOT RE 2: Calculation method
Aquatic Chronic 2: Calculation method
Repr. 2: Calculation method
Repr. 2: Calculation method
Carc. 2: Calculation method
Flam. Liq. 2: Calculation method (2.6.4.3)
Eye Irrit. 2: Calculation method

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -