

A.M.P.E.R.E SOLVENT ROAD MARKING PAINT® –20L, 5L, 1L  
Code: 630190001, 630190000, 630190013



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



1.1	<b>PRODUCT IDENTIFIER:</b> A.M.P.E.R.E SOLVENT ROAD MARKING PAINT® –20L, 5L, 1L <b>UFI:</b> 79J5-90YS-V00F-S5JC Code: 630190001, 630190000, 630190013
1.2	<b>RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:</b> <u>Intended uses (main technical functions):</u> [X] Industrial [X] Professional [ ] Consumers Thinner for the application of paints and varnishes. <u>Uses advised against:</u> This product is not recommended for any use or sector of use (industrial, professional or consumer) other than those previously listed as 'Intended or identified uses'. <u>Restrictions on manufacture, placing on market and use, according to Annex XVII of Regulation (EC) No. 1907/2006:</u> Not restricted.
1.3	<b>DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:</b> A.M.P.E.R.E. SYSTEM 3 rue Antoine Balard - Z.I. du Vert Galant 95310 Saint-Ouen-l'Aumône - FRANCE Tél: + 33 1 34 64 72 72 / Fax: +33 1 30 37 55 17 <u>E-mail address of the person responsible for the Safety Data Sheet:</u> e-mail: fds@amperesystem.com
1.4	<b>EMERGENCY TELEPHONE NUMBER:</b>  0344 892 0111

**SECTION 2 : HAZARDS IDENTIFICATION**

2.1 **CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:**  
Classification of mixtures is carried out in accordance with the following principles: a) when data (tests) for the classification of mixtures are available, generally is carried out based on these data, b) in the absence of data (tests) for mixtures are generally used interpolation or extrapolation methods of assessing the risk, using the available data for mixtures similarly classified, and c) in the absence of tests and information which would allow to apply interpolation or extrapolation techniques, methods are used to classify risk assessment based on the data of the individual components in the mixture.

Classification in accordance with Regulation (EU) No. 1272/2008~2020/1182 (CLP):

DANGER: Flam. Liq. 2:H225 | Skin Irrit. 2:H315 | Repr. 2:H361d | STOT SE (narcois) 3:H336 | STOT RE 2:H373 | Asp. Tox. 1:H304 | EUH066

Danger class	Classification of the mixture	Cat.	Routes of exposure	Target organs	Effects
<u>Physicochemical:</u> 	Flam. Liq. 2:H225 Skin Irrit. 2:H315 Repr. 2:H361d	c) Cat.2 c) Cat.2 c) Cat.2	- Skin Inhalation	- Skin Reproductive system	- Irritation Foetus Narcosis
<u>Human health:</u> 	STOT SE (narcois) 3:H336 STOT RE 2:H373iJ Asp. Tox. 1:H304 EUH066	c) Cat.3 c) Cat.2 c) Cat.1 c)	Inhalation Inhalation Ingestion+Aspiration Skin	CNS CNS Lungs Skin	Damage Dead Dryness, Cracking
<u>Environment:</u> Not classified					

Full text of hazard statements mentioned is indicated in section 16.

Note: When in section 3 a range of percentages is used, the health and environmental hazards describe the effects of the highest concentration of each component, but below the maximum value.

2.2 **LABEL ELEMENTS:**

This product is labelled with the signal word DANGER in accordance with Regulation (EU) No. 1272/2008~2020/1182 (CLP)

Hazard statements:

H225 Highly flammable liquid and vapour.  
H361d Suspected of damage the unborn child if inhaled.  
H373iJ May cause damage to central nervous system through prolonged or repeated exposure if inhaled.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H336 May cause drowsiness or dizziness.

Precautionary statements:

P102-P405 Keep out of reach of children. Store locked up.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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P280F  
P301+P310-P330+P331  
P303+P361+P353-P352-P312

Wear protective gloves, clothing and eye protection. In case of inadequate ventilation wear respiratory protection.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash with plenty of soap and water. Call a POISON CENTER or doctor if you feel unwell.  
Dispose of contents/container in accordance with local regulations.

P501a

[Supplementary statements:](#)

None.

[Substances that contribute to classification:](#)

Toluene

2.3

[OTHER HAZARDS:](#)

Hazards which do not result in classification but which may contribute to the overall hazards of the mixture:

[Other physicochemical hazards:](#) Vapours may form with air a mixture potentially flammable or explosive.[Other adverse human health effects:](#) # No other relevant adverse effects are known.[Other negative environmental effects:](#) Does not contain substances that fulfil the PBT/vPvB criteria.**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**

3.1

[SUBSTANCES:](#)

Not applicable (mixture).

3.2

[MIXTURES:](#)

This product is a mixture.

[Chemical description:](#)

Toluene.

[HAZARDOUS INGREDIENTS:](#)

Substances taking part in a percentage higher than the exemption limit:

50 &lt; 100 %



Toluene

CAS: 108-88-3, EC: 203-625-9

REACH: 01-2119471310-51

Index No. 601-021-00-3

CLP: Danger: Flam. Liq. 2:H225 | Skin Irrit. 2:H315 | Repr. 2:H361id | STOT SE (narcosis)

&lt; REACH / CLP00

3:H336 | STOT RE 2:H373iJ | Asp. Tox. 1:H304

[Impurities:](#)

Does not contain other components or impurities which will influence the classification of the product.

[Stabilizers:](#)

None

[Reference to other sections:](#)

For more information on hazardous ingredients, see sections 8, 11, 12 and 16.

[SUBSTANCES OF VERY HIGH CONCERN \(SVHC\):](#)

List updated by ECHA on 08/07/2021.

[Substances SVHC subject to authorisation, included in Annex XIV of Regulation \(EC\) no. 1907/2006:](#)

None

[Substances SVHC candidate to be included in Annex XIV of Regulation \(EC\) no. 1907/2006:](#)

None

[PERSISTENT, BIOACCUMULABLE AND TOXIC PBT, OR VERY PERSISTENT AND VERY BIOACCUMULABLE VPVB SUBSTANCES:](#)

Does not contain substances that fulfil the PBT/vPvB criteria.

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## SECTION 4 : FIRST AID MEASURES

## 4.1 DESCRIPTION OF FIRST-AID MEASURES:



Symptoms may occur after exposure, so that in case of direct exposure to the product, when in doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. Lifeguards should pay attention to self-protection and use the recommended protective equipment if there is a possibility of exposure. Wear protective gloves when administering first aid. It can be dangerous to the person giving artificial respiration by mouth-to-mouth (the kiss of life).

Route of exposure	Symptoms and effects, acute and delayed	Description of first-aid measures
<u>Inhalation:</u> 	Inhalation of solvent vapours may produce headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness.	Remove the patient out of the contaminated area into the fresh air. If breathing is irregular or stops, administer artificial respiration. If the person is unconscious, place in appropriate recovery position. Keep the patient warm and at rest until medical attention arrives.
<u>Skin:</u> 	Skin contact causes redness. Prolonged contact may cause skin dryness.	Remove immediately contaminated clothing. Wash thoroughly the affected area with plenty of cold or lukewarm water and neutral soap, or use a suitable skin cleanser.
<u>Eyes:</u>	Contact with the eyes produces redness and pain.	Remove contact lenses. Rinse eyes copiously by irrigation with plenty of clean, fresh water for at least 15 minutes, holding the eyelids apart, until the irritation is reduced. Call a physician immediately.
<u>Ingestion:</u> 	If swallowed, may cause irritation of the throat, abdominal pain, drowsiness, nausea, vomiting and diarrhoea.	If swallowed, seek medical advice immediately and show container or label. Do not induce vomiting, due to the risk of aspiration. Keep the patient at rest.

## 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

The main symptoms and effects are indicated in sections 4.1 and 11.1

## 4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Notes to physician: The product inhaled during vomiting could cause lung damage. Thus, emesis should not be induced, neither mechanically nor pharmacologically. In the case of ingestion, empty the stomach with caution.

Antidotes and contraindications: Specific antidote not known. In the case of a pneumonia by chemical agents, must be considered a therapy with antibiotics and corticosteroids.

## SECTION 5 : FIRE-FIGHTING MEASURES

## 5.1 EXTINGUISHING MEDIA:

Extinguishing powder or CO2. In the case of more important fires, also alcohol resistant foam and water spray/mist. Do not use for extinguishing: direct water jet. Direct water jet may not be effective to extinguish the fire, since the fire may spread.

## 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Fire can produce a dense black smoke. As consequence of combustion or thermal decomposition, hazardous products may be produced: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products may be a hazard to health.

## 5.3 ADVICE FOR FIREFIGHTERS:

Special protective equipment: Depending on magnitude of fire, heat-proof protective clothing may be required, appropriate independent breathing apparatus, gloves, protective glasses or face masks and boots. If the fire-proof protective equipment is not available or is not being used, combat fire from a sheltered position or from a safe distance. The standard EN469 provides a basic level of protection for chemical incidents.

Other recommendations: Cool with water the tanks, cisterns or containers close to sources of heat or fire. Bear in mind the direction of the wind. Do not allow fire-fighting residue to enter drains, sewers or water courses.

Hazchem (Emergency Action) Code: Not available.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

## 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Eliminate possible sources of ignition and when appropriate, ventilate the area. Do not smoke. Avoid direct contact with the product. Avoid breathing vapours. Keep people without protection in opposition to the wind direction.

## 6.2 ENVIRONMENTAL PRECAUTIONS:

Avoid contamination of drains, surface or subterranean water and soil. In the case of large scale spills or when the product contaminates lakes, rivers or sewages, inform the appropriate authorities in accordance with local regulations.

## 6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Contain and mop up spills with non-combustible absorbent materials (earth, sand, vermiculite, diatomaceous earth, etc.). Keep the remains in a closed container.

## 6.4 REFERENCE TO OTHER SECTIONS:

For contact information in case of emergency, see section 1.  
For information on safe handling, see section 7.  
For exposure controls and personal protection measures, see section 8.  
For waste disposal, follow the recommendations in section 13.

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## SECTION 7 : HANDLING AND STORAGE

7.1	<p><b>PRECAUTIONS FOR SAFE HANDLING:</b> Comply with the existing legislation on health and safety at work. <b>General recommendations:</b> Avoid any type of leakage or escape. Keep the container tightly closed. <b>Recommendations for the prevention of fire and explosion risks:</b> Vapours are heavier than air, may spread along floors to a considerable distance, can form explosive mixtures with air and are able to reach distant ignition sources and flame up or explode. Due to its flammability, this material should only be used in areas from which all naked lights and other sources of ignition have been excluded and away from other heat or electrical sources. Switch mobile phones off and do not smoke. No tools with a potential for sparks should be used.</p> <table border="0"> <tr> <td>- Flash point</td> <td>:</td> <td>6* °C</td> <td>CLP 2.6.4.3.</td> </tr> <tr> <td>- Autoignition temperature</td> <td>:</td> <td>480* # °C</td> <td></td> </tr> <tr> <td>- Lower/upper flammability or explosive limits</td> <td>:</td> <td>1.2* - 7.1* % Volume 25°C</td> <td></td> </tr> <tr> <td>- Ventilation requirement</td> <td>:</td> <td>173. m3/l</td> <td>Air/Preparation</td> </tr> </table> <p>to keep below 1/10 of the Lower Explosive Limit. <b>Recommendations for the prevention of toxicological risks:</b> It is advisable pregnant women not be employed in any process in which this product is used. Do not eat, drink or smoke while handling. After handling, wash hands with soap and water. For exposure controls and personal protection measures, see section 8. <b>Recommendations for the prevention of environmental contamination:</b> It is not considered a danger to the environment. In the case of accidental spillage, follow the instructions indicated in section 6.</p>	- Flash point	:	6* °C	CLP 2.6.4.3.	- Autoignition temperature	:	480* # °C		- Lower/upper flammability or explosive limits	:	1.2* - 7.1* % Volume 25°C		- Ventilation requirement	:	173. m3/l	Air/Preparation
- Flash point	:	6* °C	CLP 2.6.4.3.														
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- Lower/upper flammability or explosive limits	:	1.2* - 7.1* % Volume 25°C															
- Ventilation requirement	:	173. m3/l	Air/Preparation														
7.2	<p><b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:</b> Forbid the entry to unauthorized persons. Keep out of reach of children. This product should be stored isolated from heat and electrical sources. Do not smoke in storage area. If possible, avoid direct contact with sunlight. Avoid extreme humidity conditions. In order to avoid leakages, the containers, after use, should be closed carefully and placed in a vertical position. For more information, see section 10. <b>Class of storage</b> : According to current legislation. <b>Temperature interval</b> : min: 5. °C, max: 40. °C (recommended). <b>Incompatible materials:</b> # Keep away from oxidizing agents, acids. <b>Type of packaging:</b> According to current legislation. <b>Limit quantity (Seveso III): Directive 2012/18/EU:</b> - Named dangerous substances/mixtures: None - Hazard categories and lower-/upperthreshold quantities in tonnes (t): · Physical hazards: Highly flammable liquid and vapour (P5c) (5000t/50000t). · Health hazards: Not applicable · Environmental hazards: Not applicable · Other hazards: Not applicable. - Threshold quantity for the application of lower-tier requirements: 5000 tons - Threshold quantity for the application of upper-tier requirements: 50000 tons - Remarks: The qualifying quantities set out above relate to each establishment. The quantities to be considered for the application of the relevant Articles are the maximum quantities which are present or are likely to be present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2 % of the relevant qualifying quantity shall be ignored for the purposes of calculating the total quantity present, if their location within an establishment is such that it cannot act as an initiator of a major accident elsewhere at that establishment. For more details, see note 4 of Annex I of the Seveso Directive.</p>																
7.3	<p><b>SPECIFIC END USES:</b> For the use of this product particular recommendations apart from that already indicated are not available.</p>																

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## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 CONTROL PARAMETERS:

If a product contains ingredients with exposure limits, may be necessary a personnel monitoring, work place or biological, to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to EN589, EN14042 and EN482 standard concerning methods for assessing the exposure by inhalation to chemical agents, and exposure to chemical and biological agents. Reference should be also made to national guidance documents for methods for the determination of dangerous substances.

OCCUPATIONAL EXPOSURE LIMIT VALUES (WEL)

EH40/2005 WELs (United Kingdom) 2018

	Year	WEL-TWA		WEL-STEL		Remarks
		ppm	mg/m3	ppm	mg/m3	
Toluene	2007	20.	75.	-	-	TLV (ACGIH)

WEL - Workplace Exposure Limit, TWA - Time Weighted Average (8 hours), STEL - Short Term Exposure Limit (15 min).

BMGV - Biological monitoring guidance value. BMGVs are non-statutory and any biological monitoring undertaken in association with a guidance value needs to be conducted on a voluntary basis (ie with the fully informed consent of all concerned).

BIOLOGICAL LIMIT VALUES:

Biological monitoring can be a very useful complementary technique to air monitoring when air sampling techniques alone may not give a reliable indication of exposure. Biological monitoring is the measurement and assessment of hazardous substances or their metabolites in tissues, secretions, excreta or expired air, or any combination of these, in exposed workers. Measurements reflect absorption of a substance by all routes. Biological monitoring may be particularly useful in circumstances where there is likely to be significant skin absorption and/or gastrointestinal tract uptake following ingestion, where control of exposure depends on respiratory protective equipment, where there is a reasonably well-defined relationship between biological monitoring and effect, or where it gives information on accumulated dose and target organ body burden which is related to toxicity.

This preparation contains the following substances that have established a biological limit value:

- Toluene (2009): 1<sup>o</sup>) Biological determinant: toluene in blood, BEI: 0.02 mg/l, Sampling time: prior to last shift of workweek (5). 2<sup>o</sup>) Biological determinant: toluene in urine, BEI: 0.03 mg/l, Sampling time: end of shift (2). 3<sup>o</sup>) Biological determinant: o-cresol in urine, BEI: 0.3 mg/g creatinine, Sampling time: end of shift (2), Notation: (B).

(2) When the end of the exposition not coincide with the end of the working day, the sample will be taken as soon as possible after the real exposition ceases.

(5) Means before the beginning of the fifth consecutive day of exposure.

(B) Background. The determinant may be present in biological specimens collected from subjects who have not been occupationally exposed, at a concentration that could affect interpretation of the result. Such background concentrations are incorporated in

DERIVED NO-EFFECT LEVEL (DNEL):

Derived no-effect level (DNEL) is a level of exposure that is considered safe, derived from toxicity data according to specific guidances included in REACH. DNEL values may differ from a occupational exposure limit (OEL) for the same chemical. OEL values may come recommended by a particular company, a government regulatory agency or an organization of experts. Although considered protective of health, the OEL values are derived by a process different of REACH.

Derived no-effect level, workers:

- Systemic effects, acute and chronic:

	DNEL Inhalation		DNEL Cutaneous		DNEL Oral	
	mg/m3		mg/kg bw/d		mg/kg bw/d	
Toluene	384.	(a) 192. (c)	s/r (a)	384. (c)	- (a)	- (c)

Derived no-effect level, workers:

- Local effects, acute and chronic:

	DNEL Inhalation		DNEL Cutaneous		DNEL Eyes	
	mg/m3		mg/cm2		mg/cm2	
Toluene	384.	(a) 192. (c)	b/r (a)	s/r (c)	s/r (a)	- (c)

Derived no-effect level, general population:

Not applicable (product for professional or industrial use).

(a) - Acute, short-term exposure, (c) - Chronic, long-term or repeated exposure.

(-) - DNEL not available (without data of registration REACH).

s/r - DNEL not derived (not identified hazard).

b/r - DNEL not derived (low hazard).

PREDICTED NO-EFFECT CONCENTRATION (PNEC):Predicted no-effect concentration, aquatic organisms:

- Fresh water, marine water and intermittent release:

	PNEC Fresh water	PNEC Marine	PNEC Intermittent
Toluene	0.680	0.680	0.680

- Wastewater treatment plants (STP) and sediments in fresh- and marine water:

	PNEC STP	PNEC Sediments	PNEC Sediments
Toluene	13.6	16.4	16.4

Predicted no-effect concentration, terrestrial organisms:

- Air, soil and effects for predators and humans:

	PNEC Air	PNEC Soil	PNEC Oral
Toluene	s/r	2.89	n/b

s/r - PNEC not derived (not identified hazard).

n/b - PNEC not derived (not bioaccumulative potential).



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8.2

EXPOSURE CONTROLS:ENGINEERING MEASURES:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these measures are not sufficient to maintain concentrations of vapours below the Occupational Exposure Limits, suitable respiratory protection must be worn.

Protection of respiratory system: Avoid the inhalation of solvents.

Protection of eyes and face: It is recommended to install water taps, sources or eyewash bottles with clean water close to the working area.

Protection of hands and skin: It is recommended to install water taps or sources with clean water close to the working area. Barrier creams may help to protect the exposed areas of the skin. Barrier creams should not be applied once exposure has occurred.

OCCUPATIONAL EXPOSURE CONTROLS: Regulation (EU) No. 2016/425:

As a general measure on prevention and safety in the work place, we recommend the use of a basic personal protection equipment (PPE), with the corresponding marking. For more information on personal protective equipment (storage, use, cleaning, maintenance, type and characteristics of the PPE, protection class, marking, category, CEN norm, etc.), you should consult the informative brochures provided by the manufacturers of PPE.

Mask:

A-type filter mask (brown) for gases and vapours of organic compounds with a boiling point higher than 65°C (EN14387). Class 1: low capacity up to 1000 ppm, Class 2: medium capacity up to 5000 ppm, Class 3: high capacity up to 10000 ppm. In order to obtain a suitable protection level, the filter class must be selected depending on the type and concentration of the contaminating agents present, in accordance with the specifications supplied by the filter producers. The respiratory equipment with filters does not work satisfactorily when the air contains high concentrations of vapour or oxygen content less than 18% in volume. In presence of high concentrations of vapour, use independent breathing apparatus.

Safety goggles:

Safety goggles designed to protect against liquid splashes, with suitable lateral protection (EN166). Clean daily and disinfect at regular intervals in accordance with the instructions of the manufacturer.

Face shield:

No.

Gloves:

Solvent-resistant gloves (EN374). When repeated or prolonged contact with the product is expected, gloves of protection level 5 or higher should be used, with a breakthrough time of >240 min. When short contact with the product is expected, use gloves with a protection level 2 or higher should be used, with a breakthrough time >30 min. The breakthrough time of the selected glove material should be in accordance with the pretended period of use. There are several factors (for example, temperature), they do in practice the period of use of a protective gloves resistant against chemicals is clearly lower than the established standard EN374. Due to the wide variety of circumstances and possibilities, the instructions/specifications provided by the glove supplier should be taken into account. Use the proper technique of removing gloves (without touching glove's outer surface) to avoid contact of the product with the skin. The gloves should be immediately replaced when any sign of degradation is noted.

Boots:

No.

Apron:

No.

Clothing:

Advisable.

Thermal hazards:

Not applicable (the product is handled at room temperature).

ENVIRONMENTAL EXPOSURE CONTROLS:

Avoid any spillage in the environment. Avoid any release into the atmosphere.

Spills on the soil: Prevent contamination of soil.

Spills in water: Do not allow to escape into drains, sewers or water courses.

- Water Management Act: This product does not contain any substance included in the list of priority substances in the field of water policy under Directive 2000/60/EC~2013/39/EU.

Emissions to the atmosphere: Because of volatility, emissions to the atmosphere while handling and use may result, in special when it is used as a solvent. Avoid any solvent release into the atmosphere.

- VOC (industrial installations): If this product is used in an industrial installation, it must be verified if it is applicable the Directive 2010/75/EC, on the limitation of emissions of volatile compounds due to the use of organic solvents in certain activities and installations: Solvents : 100.0% Weight, VOC (supply) : 100.0% Weight, VOC : 91.2% C (expressed as carbon), Molecular weight (average) : 92.2, Number C atoms (average) : 7.0.

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## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Appearance

- Physical state : Liquid.
- Colour : Colourless.
- Odour : Characteristic.

pH-value

- pH : Not applicable (non-aqueous media).

Change of state

- Melting point : -95.2\* °C
- Initial boiling point : 110.9\* °C at 760 mmHg

Density

- Vapour density : 3.18\* at 20°C 1 atm. Relative air
- Relative density : 0.868\* at 20/4°C Relative water

StabilityViscosity:

- Dynamic viscosity : 0.56 cps 20°C
- Kinematic viscosity : 0.22 mm<sup>2</sup>/s at 40°C

Volatility:

- Evaporation rate : # 182.3\* nBuAc=100 25°C Relative
- Vapour pressure : 23.2\* mmHg at 20°C
- Vapour pressure : 12.6\* kPa at 50°C

Solubility(ies)

- Solubility in water : 0.6 g/l at 20°C
- Partition coefficient: n-octanol/water : 2.73 (as log Pow)

Flammability:

- Flash point : 6\* °C CLP 2.6.4.3.
- Lower/upper flammability or explosive limits : 1.2\* - 7.1\* % Volume 25°C
- Autoignition temperature : 430\* # °C

Explosive properties:

Vapours can form explosive mixtures with air and are able to flame up or explode in presence of an ignition source.

Oxidizing properties:

Not classified as oxidizing product.

\*Estimated values based on the substances composing the mixture.

## 9.2 OTHER INFORMATION:

- Surface tension : 27.7\* din/cm at 20°C
- Heat of combustion : 10140\* Kcal/kg
- VOC (supply) : 100.0 % Weight
- VOC (supply) : 867.8 g/l

The values indicated do not always coincide with product specifications. The data for the product specifications can be found in the corresponding technical data sheet. For additional information concerning physical and chemical properties related to safety and environment, see sections 7 and 12.

## SECTION 10 : STABILITY AND REACTIVITY

## 10.1 REACTIVITY:

Corrosivity to metals: It is not corrosive to metals.

Pyrophorical properties: It is not pyrophoric.

## 10.2 CHEMICAL STABILITY:

Stable under recommended storage and handling conditions.

## 10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

# Possible dangerous reaction with oxidizing agents, acids.

## 10.4 CONDITIONS TO AVOID:

Heat: Keep away from sources of heat.

Light: If possible, avoid direct contact with sunlight.

Air: The product is not affected by exposure to air, but should not be left the containers open.

Humidity: Avoid extreme humidity conditions.

Pressure: Not relevant.

Shock: The product is not sensitive to shocks, but as a recommendation of a general nature should be avoided bumps and rough handling to avoid dents and breakage of packaging, especially when the product is handled in large quantities, and during loading and download operations.

## 10.5 INCOMPATIBLE MATERIALS:

# Keep away from oxidizing agents, acids.

## 10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

As consequence of thermal decomposition, hazardous products may be produced: carbon monoxide.

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## SECTION 11 : TOXICOLOGICAL INFORMATION

No experimental toxicological data on the preparation is available. The toxicological classification for these mixture has been carried out by using the conventional calculation method of the Regulation (EU) No. 1272/2008~2020/1182 (CLP).

## 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

## ACUTE TOXICITY:

Dose and lethal concentrations for individual ingredients:  
Toluene

LD50 (OECD 401)  
mg/kg bw oral  
> 5000. Rat

LD50 (OECD 402)  
mg/kg bw cutaneous  
> 5000. Rabbit

LC50 (OECD 403)  
mg/m3-4h inhalation  
> 384. Rat

Estimates of acute toxicity (ATE) for individual ingredients:

Not classified as a product with acute toxicity.

No observed adverse effect level

Toluene

NOAEL Oral  
mg/kg bw/d  
625. Rat

NOAEL Cutaneous  
mg/kg bw/d

NOAEC Inhalation  
mg/m3

Lowest observed adverse effect level

Toluene

LOAEL Oral  
mg/kg bw/d

LOAEL Cutaneous  
mg/kg bw/d

LOAEC Inhalation  
mg/m3  
2261. Rat

## INFORMATION ON LIKELY ROUTES OF EXPOSURE : Acute toxicity:

Routes of exposure	Acute toxicity	Cat.	Main effects, acute and/or delayed	Criteria
<u>Inhalation:</u> Not classified	ATE > 20000 mg/m3	-	Not classified as a product with acute toxicity if inhaled (based on available data, the classification criteria are not met).	GHS/CLP 3.1.3.6.
<u>Skin:</u> Not classified	ATE > 2000 mg/kg bw	-	Not classified as a product with acute toxicity in contact with skin (based on available data, the classification criteria are not met).	GHS/CLP 3.1.3.6.
<u>Eyes:</u> Not classified	Not available	-	Not classified as a product with acute toxicity by eye contact (lack of data).	GHS/CLP 1.2.5.
<u>Ingestion:</u> Not classified	ATE > 2000 mg/kg bw	-	Not classified as a product with acute toxicity if swallowed (based on available data, the classification criteria are not met).	GHS/CLP 3.1.3.6.

GHS/CLP 3.1.3.6: Classification of mixtures based on ingredients of the mixture (additivity formula).

## CORROSION / IRRITATION / SENSITISATION :

Danger class	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
<u>Respiratory corrosion/irritation:</u> Not classified	-	-	Not classified as a product corrosive or irritant by inhalation (based on available data, the classification criteria are not met).	GHS/CLP 1.2.6. 3.8.3.4.
<u>Skin corrosion/irritation:</u> 	Skin 	Cat.2	IRRITANT: Causes skin irritation.	GHS/CLP 3.2.3.3.
<u>Serious eye damage/irritation:</u> Not classified	-	-	Not classified as a product corrosive or irritant in contact with eyes (based on available data, the classification criteria are not met).	GHS/CLP 3.3.3.3.
<u>Respiratory sensitisation:</u> Not classified	-	-	Not classified as a product sensitising by inhalation (based on available data, the classification criteria are not met).	GHS/CLP 3.4.3.3.
<u>Skin sensitisation:</u> Not classified	-	-	Not classified as a product sensitising by skin contact (based on available data, the classification criteria are not met).	GHS/CLP 3.4.3.3.

GHS/CLP 3.2.3.3: Classification of the mixture when data are available for all components or only for some components.

GHS/CLP 3.3.3.3: Classification of the mixture when data are available for all components or only for some components.

GHS/CLP 3.4.3.3: Classification of the mixture when data are available for all components or only for some components.

## ASPIRATION HAZARD:

Danger class	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
<u>Aspiration hazard:</u> 	Lungs 	Cat.1	HAZARD OF ASPIRATION: May be fatal if swallowed and enters airways.	GHS/CLP 3.10.3.3.

GHS/CLP 3.10.3.3: Classification of the mixture when data are available for all components or only for some components.



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SPECIFIC TARGET ORGANS TOXICITY (STOT): Single exposure (SE) and/or Repeated exposure (RE):

Effects	SE/RE	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
<u>Cutaneous:</u>	RE	Skin 	-	# <b>DEFA T T E N I N G</b> : Repeated exposure may cause skin dryness or cracking.	GHS/CLP 1.2.4.
<u>Neurological:</u> 	SE	CNS 	Cat.3	NARCOSIS: May cause drowsiness or dizziness if inhaled.	GHS/CLP 3.8.3.4.
<u>Neurological:</u> 	RE	CNS 	Cat.2	NEUROTOXIC: May cause damage to central nervous system through prolonged or repeated exposure if inhaled.	GHS/CLP 3.8.3.4.

GHS/CLP 3.8.3.4: Classification of the mixture when data are available for all components or only for some components.

CMR EFFECTS:

Carcinogenic effects: It is not considered as a carcinogenic product.

Genotoxicity: It is not considered as a mutagenic product.

Toxicity for reproduction:

This preparation contains the following ingredients which can be toxic for human reproduction:

Toluene (Cat.2)

Effects via lactation: Not classified as a hazardous product for children breast-fed.

DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:

Routes of exposure: May be absorbed by inhalation of vapour, through the skin and by ingestion.

Short-term exposure: Exposure to solvent vapour concentrations in excess of the stated occupational exposure limit, may result in adverse health effects, such as mucous membrane and respiratory system irritation and adverse effects on kidneys, liver and central nervous system. Liquid splashes in the eyes may cause irritation and reversible damage. Very small amounts aspirated by the lungs may cause severe pulmonary damage, including death. If swallowed, may cause irritation of the throat and other effects may be the same as described in the exposure to vapours.

Long-term or repeated exposure: Repeated or prolonged contact may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

INTERACTIVE EFFECTS:

Not available.

INFORMATION ABOUT TOXICOKINETICS, METABOLISM AND DISTRIBUTION:

Dermal absorption: Not available.

Basic toxicokinetics: Not available.

ADDITIONAL INFORMATION:

Not available.

**SECTION 12 : ECOLOGICAL INFORMATION**

No experimental ecotoxicological data on the preparation as such is available. The ecotoxicological classification for these mixture has been carried out by using the conventional calculation method of the Regulation (EU) No. 1272/2008~2020/1182 (CLP).

12.1	<u>TOXICITY:</u>	<u>LC50 (OECD 203)</u> mg/l-96hours	<u>EC50 (OECD 202)</u> mg/l-48hours	<u>EC50 (OECD 201)</u> mg/l-72hours
	<u>Acute toxicity in aquatic environment for individual ingredients:</u> Toluene	> 5.5 Fishes	> 3.8 Daphnia	134. Algae
	<u>No observed effect concentration</u> Toluene	1.4 Fishes	0.74 Daphnia	> 10. Algae
	<u>Lowest observed effect concentration</u> Toluene	2.8 Fishes	mg/l-21days	mg/l-72hours

ASSESSMENT OF AQUATIC TOXICITY:

Aquatic toxicity	Cat.	Main hazards to the aquatic environment	Criteria
<u>Acute aquatic toxicity:</u> Not classified	-	Not classified as a hazardous product with acute toxicity to aquatic life (based on available data, the classification criteria are not met).	GHS/CLP 4.1.3.5.5.3.
<u>Chronic aquatic toxicity:</u> Not classified	-	Not classified as a dangerous product with chronic toxicity to aquatic life with long lasting effects (based on available data, the classification criteria are not met).	GHS/CLP 4.1.3.5.5.4.

CLP 4.1.3.5.5.3: Classification of a mixture for acute hazards, based on summation of classified components.

CLP 4.1.3.5.5.4: Classification of a mixture for chronic (long term) hazards, based on summation of classified components.

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12.2	<b>PERSISTENCE AND DEGRADABILITY:</b> <u>Biodegradability:</u> Readily biodegradable.			
	<u>Aerobic biodegradation</u> for individual ingredients : Toluene	<u>DOO</u> mgO <sub>2</sub> /g 2520.	<u>%DBO/DOO</u> 5 days 14 days 28 days > 90.	<u>Biodegradability</u> Easy
Note: Biodegradability data correspond to an average of data from various bibliographic sources.				
12.3	<b>BIOACCUMULATIVE POTENTIAL:</b> May bioaccumulate.			
	<u>Bioaccumulation</u> for individual ingredients : Toluene	<u>log Pow</u> 2.73	<u>BCF</u> L/kg 13. (calculated)	<u>Potential</u> Unlikely, bw
12.4	<b>MOBILITY IN SOIL:</b> Not available.			
	<u>Mobility</u> for individual ingredients : Toluene	<u>log P<sub>oc</sub></u> 2.31	<u>Constant of Henry</u> Pa·m <sup>3</sup> /mol·20°C 485. (calculated)	<u>Potential</u> Unlikely, bw
12.5	<b>RESULTS OF PBT AND VPVB ASSESSMENT:</b> Annex XIII of Regulation (EC) no. 1907/2006: Does not contain substances that fulfil the PBT/vPvB criteria.			
12.6	<b>OTHER ADVERSE EFFECTS:</b> <u>Ozone depletion potential:</u> Not available. <u>Photochemical ozone creation potential:</u> Not available. <u>Earth global warming potential:</u> In case of fire or incineration liberates CO <sub>2</sub> . <u>Endocrine disrupting potential:</u> Not available.			

**SECTION 13 : DISPOSAL CONSIDERATIONS**

13.1	<b>WASTE TREATMENT METHODS:</b> Directive 2008/98/EC-Regulation (EU) no. 1357/2014: Take all necessary measures to prevent the production of waste whenever possible. Analyse possible methods for revaluation or recycling. Do not discharge into drains or the environment, dispose at an authorised waste collection point. Waste should be handled and disposed in accordance with current local and national regulations. For exposure controls and personal protection measures, see section 8.  <u>Disposal of empty containers:</u> Directive 94/62/EC-2015/720/EU, Decision 2000/532/EC-2014/955/EU: Emptied containers and packaging should be disposed in accordance with currently local and national regulations. The classification of packaging as hazardous waste will depend on the degree of emptying of the same, being the holder of the residue responsible for their classification, in accordance with Chapter 15 01 of Decision 2000/532/EC, and forwarding to the appropriate final destination. With contaminated containers and packaging, adopt the same measures as for the product in itself.  <u>Procedures for neutralising or destroying the product:</u> Controlled incineration in special facilities for chemical waste, in accordance with local regulations.
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**SECTION 14 : TRANSPORT INFORMATION**

14.1	<u>UN NUMBER:</u> 1993
14.2	<u>UN PROPER SHIPPING NAME:</u> FLAMMABLE LIQUID, N.O.S. (contains toluene, in mixture)
14.3	<p><u>TRANSPORT HAZARD CLASS(ES):</u></p> <p><u>Transport by road (ADR 2021) and Transport by rail (RID 2021):</u></p> <ul style="list-style-type: none"> <li>- Class: 3</li> <li>- Packing group: II</li> <li>- Classification code: F1</li> <li>- Tunnel restriction code: (D/E)</li> <li>- Transport category: 2, max. ADR 1.1.3.6. 333 L</li> <li>- Limited quantities: 1 L (see total exemptions ADR 3.4)</li> <li>- Transport document: Consignment paper.</li> <li>- Instructions in writing: ADR 5.4.3.4</li> </ul> <p><u>Transport by sea (IMDG 39-18):</u></p> <ul style="list-style-type: none"> <li>- Class: 3</li> <li>- Packing group: II</li> <li>- Emergency Sheet (EmS): F-E,S_E</li> <li>- First Aid Guide (MFAG): 340</li> <li>- Marine pollutant: No.</li> <li>- Transport document: Shipping Bill of lading.</li> </ul> <p><u>Transport by air (ICAO/IATA 2021):</u></p> <ul style="list-style-type: none"> <li>- Class: 3</li> <li>- Packing group: II</li> <li>- Transport document: Air Bill of lading.</li> </ul> <p><u>Transport by inland waterways (ADN):</u> Not available.</p>
14.4	<u>PACKING GROUP:</u> See section 14.3



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14.5	<b>ENVIRONMENTAL HAZARDS:</b> Not applicable (not classified as hazardous for the environment).
14.6	<b>SPECIAL PRECAUTIONS FOR USER:</b> Ensure that persons transporting the product know what to do in case of accident or spill. Always transport in closed containers that are upright and secure. Ensure adequate ventilation.
14.7	<b>ADDITIONAL INFORMATION:</b> <u>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</u> Not available. <u>Hazchem (Emergency Action) Code:</u> Not available.

**SECTION 15 : REGULATORY INFORMATION**

15.1	<b>EU SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC:</b> The regulations applicable to this product generally are listed throughout this Safety Data Sheet. <u>Restrictions on manufacture, placing on market and use:</u> See section 1.2 <u>Tactile warning of danger:</u> Not applicable (product for professional or industrial use). <u>Child safety protection:</u> Not applicable (product for professional or industrial use). <b>OTHER REGULATIONS:</b> <u>Control of the risks inherent in major accidents (Seveso III):</u> See section 7.2 <u>Other local legislations:</u> The receiver should verify the possible existence of local regulations applicable to the chemical
15.2	<b>CHEMICAL SAFETY ASSESSMENT:</b> A chemical safety assessment has not been carried out for this mixture.

**SECTION 16 : OTHER INFORMATION**

	<p><b>TEXT OF THE PHRASES AND NOTES REFERENCED IN SECTIONS 2 AND/OR 3:</b> <u>Hazard statements according the Regulation (EU) No. 1272/2008~2020/1182 (CLP) Annex III:</u> H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H361id Suspected of damage the unborn child if inhaled. H373iJ May cause damage to central nervous system through prolonged or repeated exposure if inhaled.</p> <p><b>EVALUATION OF THE INFORMATION ON THE DANGER OF MIXTURES:</b> See sections 9.1, 11.1 and 12.1.</p> <p><b>ADVISES ON ANY TRAINING APPROPRIATE FOR WORKERS:</b> It is recommended for all staff that will handle this product to carry out a basic training in occupational risk and prevention, in order to provide understanding and interpretation of Safety Data Sheets and labelling of products as well.</p> <p><b>MAIN LITERATURE REFERENCES AND SOURCES FOR DATA:</b></p> <ul style="list-style-type: none"> <li>· European Chemicals Agency: ECHA, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a></li> <li>· Access to European Union Law, <a href="http://eur-lex.europa.eu/">http://eur-lex.europa.eu/</a></li> <li>· Industrial Solvents Handbook, Ibert Mellan (Noyes Data Co., 1970).</li> <li>· Workplace Exposure Limits, (United Kingdom, 2018).</li> <li>· European agreement on the international carriage of dangerous goods by road, (ADR 2021).</li> <li>· International Maritime Dangerous Goods Code IMDG including Amendment 39-18 (IMO, 2018).</li> </ul> <p><b>ABBREVIATIONS AND ACRONYMS:</b> List of abbreviations and acronyms that can be used (but not necessarily used) in this Safety Data Sheet:</p> <ul style="list-style-type: none"> <li>· REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.</li> <li>· GHS: Globally Harmonized System of Classification and Labelling of Chemicals of the United Nations.</li> <li>· CLP: European regulation on Classification, Labelling and Packaging of substances and chemical mixtures.</li> <li>· EINECS: European Inventory of Existing Commercial Chemical Substances.</li> <li>· ELINCS: European List of Notified Chemical Substances.</li> <li>· CAS: Chemical Abstracts Service (Division of the American Chemical Society).</li> <li>· UVCB: Substances of Unknown or Variable composition, complex reaction products or biological materials.</li> <li>· SVHC: Substances of Very High Concern.</li> <li>· PBT: Persistent, bioaccumulable and toxic substances.</li> <li>· vPvB: Very persistent and very bioaccumulable substances.</li> <li>· VOC: Volatile Organic Compounds.</li> <li>· DNEL: Derived No-Effect Level (REACH).</li> <li>· PNEC: Predicted No-Effect Concentration (REACH).</li> </ul> <p><b>SAFETY DATA SHEET REGULATIONS:</b> Safety Data Sheet in accordance with Article 31 of Regulation (EC) No. 1907/2006 (REACH) and Annex of Regulation (EU) No. 2015/830.</p> <p><b>HISTORIC:</b> <u>Revision:</u> Version: 6 08/07/2021 Version: 7 07/10/2021</p> <p><b>Changes since previous Safety Data Sheet:</b> # Legislative, contextual, numerical, methodological and normative changes since the previous version of the present Safety Data Sheet are identified by a red-italic hash (#).</p> <p><b>DISCLAIMER</b> <i>The information contained in this sheet comes from reliable sources. It has been drawn up based on our knowledge at the time of the most recent update, as indicated. This information is intended as an aid to the user and should not be considered as a guarantee. Conditions or methods of handling, storage, use or disposal of the product are outside our control, and we may not be held responsible for any loss, damage or expenses incurred as a result of, or in connection with, the latter.</i></p> <p><i>All substances or mixtures can present unknown dangers and must be used with caution. We cannot guarantee that all dangers have been set out in an exhaustive manner. This sheet has been drawn up for, and must be used for, this product only. If the product is used as a component in another product, the information given with it may not be applicable. This sheet does not under any circumstances exempt the user from complying with all laws, regulations and administrative requirements related to the product, health and safety, and the protection of human health and the environment.</i></p>
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The information of this Safety Data Sheet, is based on the present state of knowledge and on current UE and national laws, as the users' working conditions are beyond our knowledge and control. The product is not to be used for other purposes than those specified, without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this Safety Data Sheet is meant as a description of the safety requirements of the product and it is not to be considered as a guarantee of the product's properties.