DIMAFIX PEN
Code: EX014S0999

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

1.1 PRODUCT IDENTIFIER: DIMAFIX PEN
Code: EX014S0999

1.2 RELEVANT IDENTIFIED USES AND USES ADVISED AGAINST:
Intended uses (main technical functions): [X] Industrial [X] Professional [X] Consumers
Fixing 3D printing dabber
Sectors of use:
Consumer uses (SU21).
Uses advised against:
This product is not recommended for any use or sector of use industrial, professional or consume other than those previously listed as 'Intended or identified uses'.
Restrictions on manufacture, placing on market and use, according to Annex XVII of Regulation (EC) No. 1907/2006:
Not restricted.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:
DIMA 3D, S.L.
C/ Arenal, 12 - Nave 4, 47155 Santovenia de Pisuerga, Valladolid (Spain)
Phone: +34 983 130 005
E-mail address of the person responsible for the safety data sheet:
e-mail: soporte@dima3d.com

1.4 EMERGENCY TELEPHONE NUMBER: (+34) 983 130 005 (9:00-17:00 h.) (working hours)

SECTION 2 : HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

Classification in accordance with Regulation (EC) No. 1272/2008~605/2014 (CLP):
DANGER: Flam. Liq. 2:H225 | Eye Irrit. 2:H319 | STOT SE (narcosis) 3:H336

Danger class	Classification of the mixture	Cat.	Routes of exposure	Target organs	Effects
Physicochemical:	Flam. Liq. 2:H225 Eye Irrit. 2:H319 STOT SE (narcosis) 3:H336	Cat.2 Cat.2 Cat.3	- Eyes Inhalation	- Eyes CNS	- Irritation Narcosis
Human health:					
Environment: 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 (EC) No. 1272/2008~605/2014 (CLP)

Hazard statements:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280F	Wear protective gloves, clothing and eye protection. In case of inadequate ventilation wear respiratory protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338-P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
P337+P313	If eye irritation persists: Get medical attention.
P501a	Dispose of contents/container in accordance with local regulations.

Supplementary statements:
None.
Hazardous ingredients:
Isopropyl alcohol

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: In case of prolonged contact, the skin may become dry.
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:
Solution of resin.

HAZARDOUS INGREDIENTS:

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

70 < 80 %	Ethyl alcohol CAS: 64-17-5 , EC: 200-578-6 CLP: Danger: Flam. Liq. 2:H225 | Eye Irrit. 2:H319	REACH: 01-2119457610-43	Index No. 603-002-00-5 < REACH
10 < 15 %	Isopropyl alcohol CAS: 67-63-0 , EC: 200-661-7 CLP: Danger: Flam. Liq. 2:H225 | Eye Irrit. 2:H319 | STOT SE (narcosis) 3:H336	REACH: 01-2119457558-25	Index No. 603-117-00-0 < REACH / ATP01
10 < 15 %	1-vinyl-2-pyrrolidone-vinyl acetate polymer CAS: 25086-89-9 , EC: Polymer CLP: Aquatic Chronic 4:H413		Autoclassified
1 < 2,5 %	n-butyl acetate CAS: 123-86-4 , EC: 204-658-1 CLP: Warning: Flam. Liq. 3:H226 | STOT SE (narcosis) 3:H336 | EUH066	REACH: 01-2119485493-29	Index No. 607-025-00-1 < REACH / ATP01

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 20/06/2016.
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 fulfill the PBT/vPvB criteria.

SECTION 4 : FIRST AID MEASURES

4.1
4.2

DESCRIPTION OF FIRST-AID MEASURES AND MAIN SYMPTOMS AND EFFECTS, ACUTE AND DELAYED:

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.

Route of exposure	Symptoms and effects, acute and delayed	Description of first-aid measures
Inhalation:	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.
Skin:	In case of prolonged contact, the skin may become dry.	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. Do not use solvents or thinners.
Eyes:	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.
Ingestion:	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.

4.3

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:
Notes to physician: Treatment should be directed at the control of symptoms and the clinical condition of the patient.
Antidotes and contraindications: Specific antidote not known.

SECTION 5 : FIRE-FIGHTING MEASURES

5.1

EXTINGUISHING MEDIA:
Extinguishing powder or CO_2. 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:
Highly flammable liquid and vapour. As consequence of combustion or thermal decomposition, hazardous products may be produced: carbon monoxide, carbon dioxide, nitrogen oxides. Irritant. 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 not used, combat fire from a sheltered position or at 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.

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 this product. Avoid breathing vapours. Keep people without protection in opossition 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..). Clean preferably with a biodegradable detergent. 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 subsequent waste disposal, follow the recommendations in section 13.

SECTION 7 : HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Comply with the existing legislation on health and safety at work.

General recommendations:

Avoid any type of leakage or escape. Keep the container tightly closed.

Recommendations for the prevention of fire and explosion risks:

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.

- Flash point	:	14.	ºC
- Autoignition temperature	:	426.	ºC
- Upper/lower flammability or explosive limits	:	3.1 - 18.1	% Volume 25ºC

Recommendations for the prevention of toxicological risks:

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.

Recommendations for the prevention of environmental contamination:

It is not considered a danger to the environment. In the case of accidental spillage, follow the instructions indicated in section 6.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

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.

Class of store	:	According to current legislation.
Maximum storage period	:	24. months
Temperature interval	:	min: 5. ºC, max: 40. ºC (recommended).

Incompatible materials:

Keep away from oxidixing agents, from strongly alkaline and strongly acid materials.

Type of packaging:

According to current legislation.

Limit quantity (Seveso III): Directive 2012/18/EU:

Umbral inferior: 5000 toneladas , Umbral superior: 50000 toneladas

7.3 SPECIFIC END USES:

For the use of this product do not exist particular recommendations apart from that already indicated.

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 EN689, EN14042 and EN482 standard concerning methods for assesing 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 (TLV)

AGCIH 2014	Year	TLV-TWA ppm	TLV-TWA mg/m3	TLV-STEL ppm	TLV-STEL mg/m3	Remarks
Ethyl alcohol	1996	1000.	1880.	-	-	A4
Isopropyl alcohol	2003	200.	491.	400.	982.	A4
n-butyl acetate	1998	150.	713.	200.	950.	

TLV - Threshold Limit Value, TWA - Time Weighted Average, STEL - Short Term Exposure Limit.
A4 - Non classified as carcinogenic in humans.

BIOLOGICAL LIMIT VALUES:
Not stablished

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 mg/m3		DNEL Cutaneous mg/kg bw/d		DNEL Oral mg/kg bw/d	
Ethyl alcohol	s/r (a)	950. (c)	s/r (a)	343. (c)	- (a)	- (c)
Isopropyl alcohol	- (a)	500. (c)	- (a)	888. (c)	- (a)	- (c)
n-butyl acetate	960. (a)	480. (c)	11.0 (a)	11.0 (c)	- (a)	- (c)

Derived no-effect level, workers: - Local effects, acute and chronic:	DNEL Inhalation mg/m3		DNEL Cutaneous mg/cm2		DNEL Eyes mg/cm2	
Ethyl alcohol	1900. (a)	s/r (c)	s/r (a)	s/r (c)	- (a)	- (c)
Isopropyl alcohol	- (a)	- (c)	- (a)	- (c)	- (a)	- (c)
n-butyl acetate	960. (a)	480. (c)	s/r (a)	s/r (c)	s/r (a)	- (c)

Derived no-effect level, general population: - Systemic effects, acute and chronic:	DNEL Inhalation mg/m3		DNEL Cutaneous mg/kg bw/d		DNEL Oral mg/kg bw/d	
Ethyl alcohol	s/r (a)	114. (c)	s/r (a)	206. (c)	s/r (a)	87.0 (c)
Isopropyl alcohol	- (a)	89.0 (c)	- (a)	319. (c)	- (a)	26.0 (c)
n-butyl acetate	860. (a)	102. (c)	6.00 (a)	6.00 (c)	2.00 (a)	2.00 (c)

Derived no-effect level, general population: - Local effects, acute and chronic:	DNEL Inhalation mg/m3		DNEL Cutaneous mg/cm2		DNEL Eyes mg/cm2	
Ethyl alcohol	950. (a)	s/r (c)	s/r (a)	s/r (c)	- (a)	- (c)
Isopropyl alcohol	- (a)	- (c)	- (a)	- (c)	- (a)	- (c)
n-butyl acetate	860. (a)	102. (c)	s/r (a)	s/r (c)	s/r (a)	- (c)

(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).

PREDICTED NO-EFFECT CONCENTRATION (PNEC):

Predicted no-effect concentration, aquatic organisms: - Fresh water, marine water and intermitent release:	PNEC Fresh water mg/l	PNEC Marine mg/l	PNEC Intermittent mg/l
Ethyl alcohol	0.960	0.790	2.75
Isopropyl alcohol	141.	141.	141.
n-butyl acetate	0.180	0.0180	0.360

- Wastewater treatment plants (STP) and sediments in fresh- and marine water:	PNEC STP mg/l	PNEC Sediments mg/kg dry weight	PNEC Sediments mg/kg dry weight
Ethyl alcohol	580.	3.60	2.90
Isopropyl alcohol	2251.	552.	552.
n-butyl acetate	35.6	0.981	0.0981

Predicted no-effect concentration, terrestrial organisms: - Air, soil and effects for predators and humans:	PNEC Air mg/m3	PNEC Soil mg/kg dry weight	PNEC Oral mg/kg bw/d
Ethyl alcohol	-	0.630	720.
Isopropyl alcohol	-	28.0	160.
n-butyl acetate	s/r	0.0903	n/b

(-) - PNEC not available (without data of registration REACH).
s/r - PNEC not derived (not identified hazard).
n/b - PNEC not derived (not bioaccumulative potential).

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 particulates and vapours below the Occupational Exposure Limits, suitable respiratory protection must be worn.

Protection of respiratory system: Avoid the inhalation of vapours.
Protection of eyes and face: It is recommended to dispose of water taps or sources with clean water close to the working area.
Protection of hands and skin: It is recommended to dispose of 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.

OCUPATIONAL EXPOSURE CONTROLS: Directive 89/686/EEC~96/58/EC:
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 EC 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 65ºC (EN14387). Classe 1: low capacity up to 1000 ppm, Classe 2: medium capacity up to 5000 ppm, Classe 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.
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: ✓	Gloves resistant against chemicals (EN374). When it can be a repeated or prolonged contact, it is recommended to use gloves with a protection level 5 or higher, with a breakthrough time >240 min. When you only expects a short contact, it is recommended to use gloves with a protection level 2 or higher, 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, we must have in mind the manual of instructions from manufacturers of gloves. The gloves should be immediately replaced when any sign of degradation is noted.
Boots:	No.
Apron:	No.
Clothing:	No.

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 Control Act: Este producto no contiene ninguna sustancia incluida en la lista de sustancias prioritarias en el ámbito de la política de aguas, según la Directiva 2000/60/CE~2013/39/UE.

Emissions to the atmosphere: Because of volatility, emissions to the atmosphere while handling and use may result. Avoid any release into the atmosphere.
- VOC (industrial installations): Si el producto se utiliza en una instalación industrial, se debe verificar si es de aplicación la Directiva 2010/75/UE (RD.117/2003~RD.815/2013), relativa a la limitación de emisiones de compuestos orgánicos volátiles debidas al uso de disolventes orgánicos en determinadas actividades industriales: Disolventes : 89.2% Peso , COV (suministro) : 89.2% Peso , COV : 47.9% C (expresado como carbono) , Peso molecular (medio) : 50.3 , Número atomos C (medio) : 2.3.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Appearance				
- Physical state	:	Liquid.		
- Odour	:	Characteristic		
- Odour threshold	:	Not available (mixture).		
pH-value				
- pH	:	Not applicable		
Change of state				
- Melting point	:	Not applicable (mixture).		
- Initial boiling point	:	78.3	ºC at 760 mmHg	
Density				
- Relative density	:	0.826	at 20/4ºC	Relative water
Stability				
- Decomposition temperature	:	Not available		
Viscosity:				
- Viscosity (flow time)	:	Not available		
Volatility:				
- Vapour pressure	:	5.8	kPa at 20ºC	
- Vapour pressure	:	29.	kPa at 50ºC	
Solubility(ies)				
- Solubility in water:	:	Not available		
- Solubility in oils and fats:	:	Not available		
Flammability:				
- Flash point	:	14.	ºC	
- Upper/lower flammability or explosive limits	:	3.1 - 18.1	% Volume 25ºC	
- Autoignition temperature	:	426.	ºC	

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.

9.2 OTHER INFORMATION:

- Solids	:	10.8	% Weight
- VOC (supply)	:	89.2	% Weight
- VOC (supply)	:	736.6	g/l

The values indicated do not always coincide with product specifications. The data for the product specifications can be found in the technical data sheet of the same. 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, alkalis, peroxides.

10.4 CONDITIONS TO AVOID:
Heat: Keep away from sources of heat.
Light: If possible, avoid direct contact with sunlight.
Air: Not applicable.
Humidity: Avoid extreme humidity conditions.
Pressure: Not applicable.
Shock: Not applicable.

10.5 INCOMPATIBLE MATERIALS:
Keep away from oxidixing agents, from strongly alkaline and strongly acid materials.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:
As consequence of thermal decomposition, hazardous products may be produced: nitrogen oxides.

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 (EC) No. 1272/2008~605/2014 (CLP).

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY:

Dose and lethal concentrations for individual ingredients :	DL50 (OECD 401) mg/kg oral	DL50 (OECD 402) mg/kg cutaneous	CL50 (OECD 403) mg/m3.4h inhalation
Ethyl alcohol	10470. Rat	> 20000. Rabbit	> 20000. Rat
Isopropyl alcohol	5045. Rat	12800. Rabbit	> 72600. Rat
n-butyl acetate	10768. Rat	17600. Rabbit	> 23400. Rat

No observed adverse effect level
Not available
Lowest observed adverse effect level
Not available

INFORMATION ON LIKELY ROUTES OF EXPOSURE : Acute toxicity:

Routes of exposure	Acute toxicity	Cat.	Main effects, acute and/or delayed
Inhalation: 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).
Skin: Not classified	ATE > 2000 mg/kg	-	Not classified as a product with acute toxicity in contact with skin (based on available data, the classification criteria are not met).
Eyes: Not classified	Not available	-	Not classified as a product with acute toxicity by eye contact (lack of data).
Ingestion: Not classified	ATE > 5000 mg/kg	-	Not classified as a product with acute toxicity if swallowed (based on available data, the classification criteria are not met).

CORROSION / IRRITATION / SENSITISATION :

Danger class	Target organs	Cat.	Main effects, acute and/or delayed
Respiratory corrosion/irritation: Not classified	-	-	Not classified as a product corrosive or irritant by inhalation (based on available data, the classification criteria are not met).
Skin corrosion/irritation: Not classified	-	-	Not classified as a product corrosive or irritant in contact with skin (based on available data, the classification criteria are not met).
Serious eye damage/irritation:	Eyes	Cat.2	IRRITANT: Causes serious eye irritation.
Respiratory sensitisation: Not classified	-	-	Not classified as a product sensitising by inhalation (based on available data, the classification criteria are not met).
Skin sensitisation: Not classified	-	-	Not classified as a product sensitising by skin contact (based on available data, the classification criteria are not met).

ASPIRATION HAZARD:

Danger class	Target organs	Cat.	Main effects, acute and/or delayed
Aspiration hazard: Not classified	-	-	Not classified as a product hazardous by aspiration (based on available data, the classification criteria are not met).

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
Neurological:	SE	CNS	Cat.3	NARCOSIS: May cause drowsiness or dizziness if inhaled.

CMR EFFECTS:
Carcinogenic effects: Is not considered as a carcinogenic product.
Genotoxicity: Is not considered as a mutagenic product.
Toxicity for reproduction: Do not harm fertility. Do not harm the fetus developping.
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. If swallowed, may cause irritation of the throat; 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 TOXICOCINETICS, 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 (EC) No. 1272/2008~605/2014 (CLP).

12.1 TOXICITY:

Acute toxicity in aquatic environment for individual ingredients :	CL50 (OECD 203) mg/l.96hours	CE50 (OECD 202) mg/l.48hours	CE50 (OECD 201) mg/l.72hours
Ethyl alcohol	14200. Fishes	5012. Daphnia	275. Algae
Isopropyl alcohol	9640. Fishes	13300. Daphnia	> 1000. Algae
1-vinyl-2-pyrrolidone-vinyl acetate polymer		> 1000. Daphnia	
n-butyl acetate	18. Fishes	44. Daphnia	675. Algae

No observed effect concentration
Not available
Lowest observed effect concentration
Not available

12.2 PERSISTENCE AND DEGRADABILITY:
Not available.

Aerobic biodegradation for individual ingredients :	DQO mgO2/g	%DBO/DQO 5 days 14 days 28 days	Biodegradability
Ethyl alcohol	1990.	~ 74. ~ 95. ~ 99.	Easy
Isopropyl alcohol	2396.		Easy
1-vinyl-2-pyrrolidone-vinyl acetate polymer		1.	Not easy
n-butyl acetate	2204.	~ 80. ~ 82. ~ 83.	Easy

12.3 BIOACCUMULATIVE POTENTIAL:
Not available.

Bioaccumulation for individual ingredients :	logPow	BCF L/kg	Potential
Ethyl alcohol	-0.310	3.2 (calculated)	No bioaccumulable
Isopropyl alcohol	0.0500	3.2 (calculated)	No bioaccumulable
1-vinyl-2-pyrrolidone-vinyl acetate polymer			No bioaccumulable
n-butyl acetate	1.81	6.9 (calculated)	No bioaccumulable

12.4 MOBILITY IN SOIL:
Not available.

12.5 RESULTS OF PBT AND VPVB ASSESMENT: Annex XIII of Regulation (EC) no. 1907/2006:
Does not contain substances that fulfill the PBT/vPvB criteria.

12.6 OTHER ADVERSE EFFECTS:
Ozone depletion potential: Not available.
Photochemical ozone creation potential: Not available.
Earth global warming potential: In case of fire or incineration liberates CO_2.
Endocrine disrupting potential: Not available.

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: 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 of at an authorised waste collection point. Waste should be handled and disposed of in accordance with current local and national regulations. For exposure controls and personal protection measures, see section 8.

Disposal of empty containers: Directive 94/62/EC~2005/20/EC, Decision 2000/532/EC~2014/955/EU:
Emptied containers and packaging should be disposed of in accordance with currently local and national regulations. The classification of packaging as hazardous waste will depend on the degree of empting 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.

Procedures for neutralising or destroying the product:
Controlled incineration in special facilities for chemical waste, in accordance with local regulations.

SECTION 14 : TRANSPORT INFORMATION

14.1 UN NUMBER: 1263

14.2 UN PROPER SHIPPING NAME:
PAINT

14.3 TRANSPORT HAZARD CLASS(ES) AND PACKING GROUP:
14.4

(Special provision 640D)
VP<110 kPa50ºC

Transport by road (ADR 2015) and
Transport by rail (RID 2015):

- Class: 3
- Packaging group: II
- Classification code: F1
- Tunnel restriction code: (D/E)
- Transport category: 2 , max. ADR 1.1.3.6. 333 L
- Limited quantities: 5 L (see total exemptions ADR 3.4)
- Transport document: Consignment paper.
- Instructions in writing: ADR 5.4.3.4

Transport by sea (IMDG 37-14):

- Class: 3
- Packaging group: II
- Emergency Sheet (EmS): F-E,S_E
- First Aid Guide (MFAG): 310,313
- Marine pollutant: No.
- Transport document: Shipping Bill of lading.

Transport by air (ICAO/IATA 2015):

- Class: 3
- Packaging group: II
- Transport document: Air Bill of lading.

Transport by inland waterways (ADN):
Not available.

14.5 ENVIRONMENTAL HAZARDS:
Not applicable (not classified as hazardous for the environment).

14.6 SPECIAL PRECAUTIONS FOR USER:
Ensure that persons transporting the product know what to do in case of accident or spill. Always transport in closed containers that are in a vertical position and sure. Ensure adequate ventilation.

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:
Not applicable.

SECTION 15 : REGULATORY INFORMATION

15.1 EU SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC:
The regulations applicable to this product generally are listed throughout this material safety data sheet.

Restrictions on manufacture, placing on market and use: See section 1.2

Control of the risks inherent in major accidents (Seveso III): See section 7.2

Tactile warning of danger: If the product is intended for the general public, is mandatory a tactile warning of danger. The technical specifications for tactile warning devices shall conform with EN ISO standard 11683 relating to 'Packaging - Tactile warnings of danger - Requirements.'

Child safety protection: Not applicable (the classification criteria are not met).

OTHER REGULATIONS:
Not available

15.2 CHEMICAL SAFETY ASSESSMENT:
For this mixture has not been carried out a chemical safety assessment.

SECTION 16 : OTHER INFORMATION

16.1 TEXT OF THE PHRASES AND NOTES REFERENCED IN SECTIONS 2 AND/OR 3:

Hazard statements according the Regulation (EC) No. 1272/2008~605/2014 (CLP), Annex III:

H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H413 May cause long lasting harmful effects to aquatic life. EUH066 Repeated exposure may cause skin dryness or cracking.

ADVICES ON ANY TRAINING APPROPRIATE FOR WORKERS:

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 material safety data sheets and labelling of products as well.

MAIN LITERATURE REFERENCES AND SOURCES FOR DATA:

· European Chemicals Agency: ECHA, http://echa.europa.eu/
· Access to European Union Law, http://eur-lex.europa.eu/
· Industrial Solvents Handbook, Ibert Mellan (Noyes Data Co., 1970).
· Threshold Limit Values, (AGCIH, 2014).
· European agreement on the international carriage of dangerous goods by road, (ADR 2015).
· International Maritime Dangerous Goods Code IMDG including Amendment 37-14 (IMO, 2014).

ABBREVIATIONS AND ACRONYMS :

List of abbreviations and acronyms that can be used (but not necessarily used) in this material safety data sheet:

· REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
· DSD: Dangerous Substances Directive.
· DPD: Dangerous Preparations Directive.
· GHS: Globally Harmonized System of Classification and Labelling of Chemicals of the United Nations.
· CLP: European regularion on Classificatin, Labelling amd Packaging of substances and chemical mixtures.
· EINECS: European Inventory of Existing Commercial Chemical Substances.
· ELINCS: European List of Notified Chemical Substances.
· CAS: Chemical Abstracts Service (Division of the American Chemical Society).
· UVCB: Substances of Unknown or Variable composition, complex reaction products or biological materials).
· SVHC: Substances of Very High Concern.
· PBT: Persistent, bioaccumulable and toxic substances.
· vPvB: Very persistent and very bioaccumulable substances.
· VOC: Volatile Organic Compounds.
· DNEL: Derived No-Effect Level (REACH).
· PNEC: Predicted No-Effect Concentration (REACH).
· LD50: Letal dose, 50 percent.
· LC50: Letal concentration, 50 percent.
· UN: United Nations Organisation.
· ADR: European agreement concerning the international carriage of dangeous goods by road.
· RID: Regulations concerning the international transport of dangeous goods by rail.
· IMDG: International Maritime code for Dangerous Goods.
· IATA: International Air Transport Association.
· ICAO: International Civil Aviation Organization.

MATERIAL SAFETY DATA SHEET REGULATIONS:

Material Safety Data Sheet in accordance with Article 31 of Regulation (EC) No. 1907/2006 (REACH) and Annex of Regulation (EU) No. 2015/830.

HISTORY:	Date of compilation:
Version: 1	13/09/2016

The information of this Material 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 Material 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.