





UNIVERSAL D-45
Código - 50017



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

- 1.1 Product identifier:** UNIVERSAL D-45
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- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Primers and hardening base layers.
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:** INDUSTRIAS JUNO, S.A.
Bº URIOSTE 64
48530 ORTUUELLA - VIZCAYA - ESPAÑA
Phone.: +34 946 353 143 - Fax: +34 946 641 753
pinturasmarina@juno.es
www.juno.es
- 1.4 Emergency telephone number:** +34 946 353 143 (8:00 -15:00)

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
Directive 67/548/EC and Directive 1999/45/EC:
This product was classified in accordance with Directive 67/548/EC and Directive 1999/45/EC, adapting the requirements to Regulation (EC) n°1907/2006 (REACH regulation).
F: R11 - Highly flammable
Repr. Cat 3: R63 - Possible risk of harm to the unborn child
Xi: R37/38 - Irritating to respiratory system and skin, R41 - Risk of serious damage to eyes
Xn: R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation, R65 - Harmful: may cause lung damage if swallowed
R67 - Vapours may cause drowsiness and dizziness
- 2.2 Label elements:**
Directive 67/548/EC and Directive 1999/45/EC:
In accordance with the legislation, the elements on the label are as follows:
-  
Highly flammable Harmful
- R Phrases:**
R11: Highly flammable
R37/38: Irritating to respiratory system and skin
R41: Risk of serious damage to eyes
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation
R63: Possible risk of harm to the unborn child
R65: Harmful: may cause lung damage if swallowed
R67: Vapours may cause drowsiness and dizziness
- S Phrases:**
S2: Keep out of the reach of children
S23: Do not breathe vapour and spray
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection
S51: Use only in well-ventilated areas
S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label
- Supplementary information:**
Non-applicable
- Substances that contribute to the classification:**
Toluene
- 2.3 Other hazards:**
Non-applicable

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description: Mixture composed of additives and resins in solvents

Components:

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 108-88-3 EC: 203-625-9 Index: 601-021-00-3 REACH:01-2119471310-51-XXXX	Toluene ATP CLP00		50 - <75 %
	Directive 67/548/EC	F: R11; Repr. Cat 3: R63; Xi: R38; Xn: R48/20, R65; R67 Regulation 1272/2008 Asp. Tox. 1: H304; Flam. Liq. 2: H225; Repr. 2: H361d; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H336 - Danger	
CAS: 78-83-1 EC: 201-148-0 Index: 603-108-00-1 REACH:01-2119484609-23-XXXX	Isobutanol ATP CLP00		10 - <25 %
	Directive 67/548/EC	Xi: R37/38, R41; R10; R67 Regulation 1272/2008 Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger	
CAS: 79-20-9 EC: 201-185-2 Index: 607-021-00-X REACH:01-2119459211-47-XXXX	Methyl Acetate ATP CLP00		1 - <10 %
	Directive 67/548/EC	F: R11; Xi: R36; R66; R67 Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger	
CAS: 71-36-3 EC: 200-751-6 Index: 603-004-00-6 REACH:01-2119484630-38-XXXX	1-butanol ATP CLP00		1 - <10 %
	Directive 67/548/EC	Xi: R37/38, R41; Xn: R22; R10; R67 Regulation 1272/2008 Acute Tox. 4: H302; Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger	
CAS: 67-64-1 EC: 200-662-2 Index: 606-001-00-8 REACH:01-2119471330-49-XXXX	Acetone ATP CLP00		1 - <10 %
	Directive 67/548/EC	F: R11; Xi: R36; R66; R67 Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger	
CAS: 67-56-1 EC: 200-659-6 Index: 603-001-00-X REACH:01-211943301-44-XXXX	Methanol ATP CLP00		1 - <10 %
	Directive 67/548/EC	F: R11; T: R23/24/25, R39/23/24/25 Regulation 1272/2008 Acute Tox. 3: H301+H311+H331; Flam. Liq. 2: H225; STOT SE 1: H370 - Danger	

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.

SECTION 4: FIRST AID MEASURES

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 MSDS 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 luke warm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the MSDS of the product.

By consumption:

Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. 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

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SECTION 5: FIREFIGHTING MEASURES (continue)

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 tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive subproducts 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 individual respiratory equipment. 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. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, 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 inertizing agent. 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:

Product not classified as dangerous for the environment, however it is necessary to avoid spillage as the product is classified as dangerous for health and/or its physicochemical properties.

6.3 Methods and material for containment and cleaning up:

It is recommended:

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. Avoid projections and pulverisations. Comply with the essential security requirements for equipment and systems defined in Directive 94/9/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 fixed places that comply with the necessary security 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 containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

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SECTION 7: HANDLING AND STORAGE (continue)

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

- Minimum Temp.: 5 °C
- Maximum Temp.: 30 °C
- Maximum time: 24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food

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 work environment

Identification	Environmental limits		
	IOELV (8h)	IOELV (STEL)	Year
Toluene CAS: 108-88-3 EC: 203-625-9	50 ppm	100 ppm	2012
Acetone CAS: 67-64-1 EC: 200-662-2	500 ppm		2012
Methanol CAS: 67-56-1 EC: 200-659-6	200 ppm		2012

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
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
Isobutanol CAS: 78-83-1 EC: 201-148-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	310 mg/m ³
Methyl Acetate CAS: 79-20-9 EC: 201-185-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	88 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	610 mg/m ³	305 mg/m ³
1-butanol CAS: 71-36-3 EC: 200-751-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	310 mg/m ³
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
Methanol CAS: 67-56-1 EC: 200-659-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	40 mg/kg	Non-applicable	40 mg/kg	Non-applicable
	Inhalation	260 mg/m ³	260 mg/m ³	260 mg/m ³	260 mg/m ³

DNEL (Population):

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
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
Isobutanol CAS: 78-83-1 EC: 201-148-0	Oral	Non-applicable	Non-applicable	25 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	55 mg/m ³
Methyl Acetate CAS: 79-20-9 EC: 201-185-2	Oral	Non-applicable	Non-applicable	44 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	44 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	131 mg/m ³	152 mg/m ³
1-butanol CAS: 71-36-3 EC: 200-751-6	Oral	Non-applicable	Non-applicable	3,125 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	55 mg/m ³
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
Methanol CAS: 67-56-1 EC: 200-659-6	Oral	8 mg/kg	Non-applicable	8 mg/kg	Non-applicable
	Dermal	8 mg/kg	Non-applicable	8 mg/kg	Non-applicable
	Inhalation	50 mg/m ³	50 mg/m ³	50 mg/m ³	50 mg/m ³

PNEC:

Identification				
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
Isobutanol CAS: 78-83-1 EC: 201-148-0	STP	10 mg/L	Fresh water	0,4 mg/L
	Soil	0,0699 mg/kg	Marine water	0,04 mg/L
	Intermittent	11 mg/L	Sediment (Fresh water)	1,52 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,152 mg/kg
Methyl Acetate CAS: 79-20-9 EC: 201-185-2	STP	600 mg/L	Fresh water	0,12 mg/L
	Soil	0,0416 mg/kg	Marine water	0,012 mg/L
	Intermittent	1,2 mg/L	Sediment (Fresh water)	0,128 mg/kg
	Oral	20,4 g/kg	Sediment (Marine water)	0,0128 mg/kg
1-butanol CAS: 71-36-3 EC: 200-751-6	STP	2476 mg/L	Fresh water	0,082 mg/L
	Soil	0,015 mg/kg	Marine water	0,0082 mg/L
	Intermittent	2,25 mg/L	Sediment (Fresh water)	0,178 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0178 mg/kg
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
Methanol CAS: 67-56-1 EC: 200-659-6	STP	100 mg/L	Fresh water	154 mg/L
	Soil	23,5 mg/kg	Marine water	15,4 mg/L
	Intermittent	1540 mg/L	Sediment (Fresh water)	570,4 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable

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 professional exposure limits. In case of using individual protection equipment they should have the "CE marking" in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

B.- Respiratory protection



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

LRP Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles		EN 149:2001+A1:2009 EN 405:2001+A1:2009	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.





C.- Specific protection for the hands

LRP Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 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.



D.- Ocular and facial protection

LRP Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask		EN 166:2001 EN 167:2001 EN 168:2001 EN 172:1994/A1:2000 EN 172:1994/A2:2001 EN 165:2005	Clean daily and disinfect periodically according to the manufacturer's instructions.

E.- Bodily protection

LRP Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN 340:2003 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		EN 13287:2007 EN ISO 20345:2011 EN 13832-1:2006 EN ISO 20344:2011	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

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

Volatil organic compounds:

With regard to Directive 1999/13/EC, this product has the following characteristics:

V.O.C. (Supply): 100 % weight
V.O.C. density at 20 °C: 853,04 kg/m³ (853,04 g/L)
Average carbon number: 5,73
Average molecular weight: 88,31 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

*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 (continue)

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C: Liquid
Appearance: Fluid
Color: Colourless
Odor: Characteristic

Volatility:

Boiling point at atmospheric pressure: 56 °C
Vapour pressure at 20 °C: 5677 Pa
Vapour pressure at 50 °C: 21895 Pa (22 kPa)
Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: 853 kg/m³
Relative density at 20 °C: 0,853
Dynamic viscosity at 20 °C: 0,86 cP
Kinematic viscosity at 20 °C: 1 cSt
Kinematic viscosity at 40 °C: Non-applicable *
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 20 °C: 2 kg/m³
Partition coefficient n-octanol/water 20 °C: Non-applicable *
Solubility in water at 20 °C: 0 kg/m³
Solubility property: Immiscible
Decomposition temperature: Non-applicable *

Flammability:

Flash Point: 3 °C
Autoignition temperature: 492 °C
Lower flammability limit: Not available
Upper flammability limit: Not available

9.2 Other information:

Surface tension at 20 °C: 30000 N/m
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 if the following technical instructions storage of chemicals. 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 conditions no hazardous reactions are expected to produce a pressure or excessive temperatures.

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

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SECTION 10: STABILITY AND REACTIVITY (continue)

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Not applicable	Not applicable	Avoid direct impact	Avoid direct impact	Not applicable

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:

No experimental information is available on the product itself in relation to the toxicological properties. When performing the danger classification on corrosive or irritant effects the recommendations included in section 3.2.5 of Annex VI of Directive 67/548/EC, in paragraphs b) and c) of section 3 of article 6 of Directive 1999/45/EC and in section 3.2.3.3.5. of Annex I of CLP Regulation were taken into account.

Dangerous health implications:

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

A.- Ingestion:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

B- Inhalation:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes:

Produces serious eye damage after contact.

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

Exposure to this product can have adverse effects on the fetus. For more specific information on the possible health effects see section 2.

E- Sensitizing effects:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitizing effects. For more information see section 3.

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

Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and in serious cases, loss of concentration.

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

Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and in serious cases, loss of concentration.

H- Aspiration hazard:

The consumption of a considerable dose can cause pulmonary damage.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Toluene CAS: 108-88-3 EC: 203-625-9	5580 mg/kg	12124 mg/kg	Rat
		28,1 mg/L (4 h)	Rat
	3350 mg/kg	2460 mg/kg	Rat
Isobutanol CAS: 78-83-1 EC: 201-148-0	2292 mg/kg	24,6 mg/L (4 h)	Rabbit
	3400 mg/kg		Rat
	24,6 mg/L (4 h)		Rat
1-butanol CAS: 71-36-3 EC: 200-751-6	2292 mg/kg		Rat
	3400 mg/kg		Rabbit
	24,6 mg/L (4 h)		Rat

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SECTION 11: TOXICOLOGICAL INFORMATION (continue)

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Acetone CAS: 67-64-1 EC: 200-662-2	5800 mg/kg	7426 mg/kg	Rat
	Non-applicable		Rabbit
Methanol CAS: 67-56-1 EC: 200-659-6	100 mg/kg	300 mg/kg	Rat
	3 mg/L (4 h)		Rabbit
			Rat

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the ecotoxicological properties of the mixture itself is not available

12.1 Toxicity:

Identification	Acute toxicity		Specie	Genus
	LC50	EC50		
Toluene CAS: 108-88-3 EC: 203-625-9	13 mg/L (96 h)	11,5 mg/L (48 h)	Carassius auratus	Fish
		125 mg/L (48 h)	Daphnia magna	Crustacean
			Scenedesmus subspicatus	Alga
Isobutanol CAS: 78-83-1 EC: 201-148-0	2030 mg/L (96 h)	1439 mg/L (48 h)	Carassius auratus	Fish
		1250 mg/L (48 h)	Daphnia magna	Crustacean
			Scenedesmus subspicatus	Alga
Methyl Acetate CAS: 79-20-9 EC: 201-185-2	320 mg/L (96 h)	1026,7 mg/L (48 h)	Pimephales promelas	Fish
		120 mg/L (72 h)	Daphnia magna	Crustacean
			Scenedesmus subspicatus	Alga
1-butanol CAS: 71-36-3 EC: 200-751-6	1740 mg/L (96 h)	1983 mg/L (48 h)	Pimephales promelas	Fish
		500 mg/L (96 h)	Daphnia magna	Crustacean
			Scenedesmus subspicatus	Alga
Acetone CAS: 67-64-1 EC: 200-662-2	5540 mg/L (96 h)	23,5 mg/L (48 h)	Oncorhynchus mykiss	Fish
		3400 mg/L (48 h)	Daphnia magna	Crustacean
			Chlorella pyrenoidosa	Alga
Methanol CAS: 67-56-1 EC: 200-659-6	15400 mg/L (96 h)	12000 mg/L (96 h)	Lepomis macrochirus	Fish
		530 mg/L (168 h)	Nitrocras spinipes	Crustacean
			Microcystis aeruginosa	Alga

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
	BOD5	Code	Concentration	Period
Toluene CAS: 108-88-3 EC: 203-625-9	2.5 g O2/g	Non-applicable	100 mg/L	14 days
	Non-applicable		% Biodegradable	100 %
Isobutanol CAS: 78-83-1 EC: 201-148-0	0.4 g O2/g	2.41 g O2/g	100 mg/L	14 days
		0.17	% Biodegradable	90 %
Methyl Acetate CAS: 79-20-9 EC: 201-185-2	Non-applicable	Non-applicable	100 mg/L	14 days
			% Biodegradable	92 %
1-butanol CAS: 71-36-3 EC: 200-751-6	1.71 g O2/g	2.46 g O2/g	Non-applicable	19 days
		0.69	% Biodegradable	98 %
Acetone CAS: 67-64-1 EC: 200-662-2	Non-applicable	Non-applicable	100 mg/L	28 days
		0.96	% Biodegradable	96 %
Methanol CAS: 67-56-1 EC: 200-659-6	Non-applicable	1.42 g O2/g	100 mg/L	14 days
			% Biodegradable	92 %

12.3 Bioaccumulative potential:

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SECTION 12: ECOLOGICAL INFORMATION (continue)

Identification	Bioaccumulation potential	
	BCF	Pow Log
Toluene CAS: 108-88-3 EC: 203-625-9	13	2,73
	Potential	Low
Isobutanol CAS: 78-83-1 EC: 201-148-0	3	0,76
	Potential	Low
Methyl Acetate CAS: 79-20-9 EC: 201-185-2	0,8	0,18
	Potential	Low
1-butanol CAS: 71-36-3 EC: 200-751-6	1	0,88
	Potential	Low
Acetone CAS: 67-64-1 EC: 200-662-2	1	-0,24
	Potential	Low
Methanol CAS: 67-56-1 EC: 200-659-6	3	-0,77
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Koc	Conclusion	Henry	Conclusion
Toluene CAS: 108-88-3 EC: 203-625-9	178	Moderate	6,728E+2 Pa·m ³ /mol	Yes
	Surface tension	27930 N/m (25 °C)	Moist soil	Yes
Isobutanol CAS: 78-83-1 EC: 201-148-0	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Surface tension	23780 N/m (25 °C)	Moist soil	Non-applicable
Methyl Acetate CAS: 79-20-9 EC: 201-185-2	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Surface tension	24540 N/m (25 °C)	Moist soil	Non-applicable
1-butanol CAS: 71-36-3 EC: 200-751-6	2,44	Very High	5,39E-2 Pa·m ³ /mol	Yes
	Surface tension	25670 N/m (25 °C)	Moist soil	Yes
Acetone CAS: 67-64-1 EC: 200-662-2	1	Very High	2,929E+0 Pa·m ³ /mol	Yes
	Surface tension	23040 N/m (25 °C)	Moist soil	Yes
Methanol CAS: 67-56-1 EC: 200-659-6	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Surface tension	23550 N/m (25 °C)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Directive 2008/98/EC)
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances	Dangerous

Waste management (disposal and evaluation):

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SECTION 13: DISPOSAL CONSIDERATIONS (continue)

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 (2000/532/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 recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2000/532/EC: Commission Decision of 3 May 2000

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2013 and RID 2013:



- | | |
|---|------------------------|
| 14.1 UN number: | UN1263 |
| 14.2 UN proper shipping name: | PAINT RELATED MATERIAL |
| 14.3 Transport hazard class(es): | 3 |
| Labels: | 3 |
| 14.4 Packing group: | III |
| 14.5 Dangerous for the environment: | No |
| 14.6 Special precautions for user | |
| Special regulations: | |
| 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 73/78 and the IBC Code: | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 2011:



- | | |
|---|------------------------|
| 14.1 UN number: | UN1263 |
| 14.2 UN proper shipping name: | PAINT RELATED MATERIAL |
| 14.3 Transport hazard class(es): | 3 |
| Labels: | 3 |
| 14.4 Packing group: | III |
| 14.5 Dangerous for the environment: | No |
| 14.6 Special precautions for user | |
| Special regulations: | |
| EmS Codes: | |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 5 L |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: | Non-applicable |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2013:

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SECTION 14: TRANSPORT INFORMATION (continue)



14.1 UN number:	UN1263
14.2 UN proper shipping name:	PAINT RELATED MATERIAL
14.3 Transport hazard class(es):	3
Labels:	3
14.4 Packing group:	III
14.5 Dangerous for the environment:	No
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of MARPOL 73/78 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) 1907/2006 (REACH): Non-applicable
Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable
Active substances for which a decision of non-inclusion onto Annex I (Regulation (EU) No 528/2012): Non-applicable
Regulation (EC) 689/2008, in relation to the import and export of hazardous chemical products: Non-applicable

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

Contains more than 0,1 % of Toluene by weight. The use of this product is prohibited in adhesives or spray paints for sale 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,
- "whoopee" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Non-applicable

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) N° 1907/2006 (Regulation (EC) N° 453/2010)

Modifications related to the previous security card which concerns the ways of managing risks. :

Composition/information on ingredients:

- Removed Content
Isobutyl Acetate (110-19-0)

Transport information:

- UN number
- Packing group

Text of R-phrases considered in section 3:

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SECTION 16: OTHER INFORMATION (continue)

Directive 67/548/EC and Directive 1999/45/EC:

- R10: Flammable
- R11: Highly flammable
- R22: Harmful if swallowed
- R23/24/25: Toxic by inhalation, in contact with skin and if swallowed
- R36: Irritating to eyes
- R37/38: Irritating to respiratory system and skin
- R38: Irritating to skin
- R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed
- R41: Risk of serious damage to eyes
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation
- R63: Possible risk of harm to the unborn child
- R65: Harmful: may cause lung damage if swallowed
- R66: Repeated exposure may cause skin dryness or cracking
- R67: Vapours may cause drowsiness and dizziness

CLP Regulation (EC) n° 1272/2008:

- Acute Tox. 3: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
- Acute Tox. 4: H302 - Harmful if swallowed.
- Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
- Eye Dam. 1: H318 - Causes serious eye damage.
- 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 to damage the foetus.
- Skin Irrit. 2: H315 - Causes skin irritation.
- STOT RE 2: H373 - May cause damage to organs
- STOT SE 1: H370 - Causes damage to organs
- STOT SE 3: H335 - May cause respiratory irritation.
- STOT SE 3: H336 - May cause drowsiness or dizziness.

Advice related to training:

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

Principal bibliographical sources:

- <http://esis.jrc.ec.europa.eu>
- <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
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

The information contained in this security 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 security data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -