BESA-VAL
Solvent based Mixing System Products

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

1.1 Product identifier: BESA-VAL
Solvent based Mixing System Products

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant uses: Liquid paint. For industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

BERNARDO ECENARRO, S.A.
Ugarte Industrialdea, 147
20720 Azkoitia - Gipuzkoa - Spain
Phone.: +34 943 74 28 00 - Fax: +34 943 74 06 03
msds@besa.es
http://www.besa.es

1.4 Emergency telephone number: +34 943742800 (8:00-13:00) (14:30-17:30)

SECTION 2: HAZARDS IDENTIFICATION **

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Acute Tox. 4: Acute toxicity, Category 4, H312+H332
Eye Irrit. 2: Eye irritation, Category 2, H319
Flam. Liq. 3: Flammable liquids, Category 3, H226
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317
STOT RE 2: Specific target organ toxicity if swallowed, repeated exposure, Category 2, H373
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Warning

Hazard statements:

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1A: H317 - May cause an allergic skin reaction
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral)
STOT SE 3: H335 - May cause respiratory irritation

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P370+P378: In case of fire: Use ABC powder extinguisher to extinguish
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

Supplementary information:

Contains Butanone oxime

Substances that contribute to the classification

Xylene; 2-butoxyethanol; Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%); Cobalt bis(2-ethylhexanoate)

2.3 Other hazards:

*** Changes with regards to the previous version*

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SECTION 2: HAZARDS IDENTIFICATION ** (continued)

Product fails to meet PBT/vPvB criteria

*** Changes with regards to the previous version*

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Non-applicable

3.2 Mixture:

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

Components:

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

Identification	Chemical name/Classification		Concentration
CAS: 1330-20-7 EC: 215-535-7 Index: 601-022-00-9 REACH: 01-2119488216-32-XXXX	**Xylene**☐¹☐	Self-classified	**50 - <100 %**
	Regulation 1272/2008	Acute Tox. 4: H312+H332; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H335 - Danger	
CAS: 111-76-2 EC: 203-905-0 Index: 603-014-00-0 REACH: 01-2119475108-36-XXXX	**2-butoxyethanol**☐¹☐	ATP CLP00	**1 - <2,5 %**
	Regulation 1272/2008	Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	
CAS: 64742-95-6 EC: 918-668-5 Index: Non-applicable REACH: 01-2119455851-35-XXXX	**Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%)**☐¹☐	Self-classified	**1 - <2,5 %**
	Regulation 1272/2008	Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226; STOT SE 3: H335; STOT SE 3: H336; EUH066 - Danger	
CAS: 96-29-7 EC: 202-496-6 Index: 616-014-00-0 REACH: 01-2119539477-28-XXXX	**Butanone oxime**☐¹☐	ATP CLP00	**0,5 - <1 %**
	Regulation 1272/2008	Acute Tox. 4: H312; Carc. 2: H351; Eye Dam. 1: H318; Skin Sens. 1: H317 - Danger	
CAS: 108-10-1 EC: 203-550-1 Index: 606-004-00-4 REACH: 01-2119473980-30-XXXX	**4-methylpentan-2-one**☐²☐	ATP CLP00	**0,5 - <1 %**
	Regulation 1272/2008	Acute Tox. 4: H332; Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H335; EUH066 - Danger	
CAS: 136-51-6 EC: 205-249-0 Index: Non-applicable REACH: 01-2119978297-19-XXXX	**calcium bis(2-ethylhexanoate)**☐¹☐	Self-classified	**0,25 - <0,5 %**
	Regulation 1272/2008	Eye Dam. 1: H318; Repr. 2: H361d - Danger	
CAS: 34590-94-8 EC: 252-104-2 Index: Non-applicable REACH: 01-2119450011-60-XXXX	**Dipropylene Glycol Methyl Ether**☐²☐	Not classified	**<0,2 %**
	Regulation 1272/2008		
CAS: 136-52-7 EC: 205-250-6 Index: Non-applicable REACH: 01-2119524678-29-XXXX	**Cobalt bis(2-ethylhexanoate)**☐¹☐	Self-classified	**<0,2 %**
	Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 3: H412; Eye Irrit. 2: H319; Repr. 1B: H360; Skin Sens. 1A: H317 - Danger	

☐¹☐ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830
☐²☐ Substance with a Union workplace exposure limit

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

*** Changes with regards to the previous version*

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

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

By inhalation:

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SECTION 4: FIRST AID MEASURES (continued)

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

By skin contact:

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

By eye contact:

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

By ingestion/aspiration:

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

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

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

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

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

5.2 Special hazards arising from the substance or mixture:

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

5.3 Advice for firefighters:

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

Additional provisions:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

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

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

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.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

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

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

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

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

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 ºC

Maximum Temp.: 30 ºC

Maximum time: 24 Months

B.- General conditions for storage

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

7.3 Specific end use(s):

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

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

Identification	Environmental limits		
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	IOELV (8h) IOELV (STEL)	50 ppm	308 mg/m³
Xylene CAS: 1330-20-7 EC: 215-535-7	IOELV (8h) IOELV (STEL)	50 ppm 100 ppm	221 mg/m³ 442 mg/m³
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	IOELV (8h) IOELV (STEL)	20 ppm 50 ppm	83 mg/m³ 208 mg/m³
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	IOELV (8h) IOELV (STEL)	20 ppm 50 ppm	98 mg/m³ 246 mg/m³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Xylene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 1330-20-7	Dermal	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
EC: 215-535-7	Inhalation	289 mg/m³	289 mg/m³	77 mg/m³	Non-applicable
2-butoxyethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 111-76-2	Dermal	89 mg/kg	Non-applicable	75 mg/kg	Non-applicable
EC: 203-905-0	Inhalation	663 mg/m³	246 mg/m³	98 mg/m³	Non-applicable

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64742-95-6	Dermal	Non-applicable	Non-applicable	25 mg/kg	Non-applicable
EC: 918-668-5	Inhalation	Non-applicable	Non-applicable	150 mg/m³	Non-applicable
Butanone oxime	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 96-29-7	Dermal	2,5 mg/kg	Non-applicable	1,3 mg/kg	Non-applicable
EC: 202-496-6	Inhalation	Non-applicable	Non-applicable	9 mg/m³	3,33 mg/m³
4-methylpentan-2-one	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 108-10-1	Dermal	Non-applicable	Non-applicable	11,8 mg/kg	Non-applicable
EC: 203-550-1	Inhalation	208 mg/m³	208 mg/m³	83 mg/m³	83 mg/m³
calcium bis(2-ethylhexanoate)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 136-51-6	Dermal	Non-applicable	Non-applicable	5,67 mg/kg	Non-applicable
EC: 205-249-0	Inhalation	Non-applicable	Non-applicable	39,98 mg/m³	Non-applicable
Dipropylene Glycol Methyl Ether	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 34590-94-8	Dermal	Non-applicable	Non-applicable	65 mg/kg	Non-applicable
EC: 252-104-2	Inhalation	Non-applicable	Non-applicable	310 mg/m³	Non-applicable
Cobalt bis(2-ethylhexanoate)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 136-52-7	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 205-250-6	Inhalation	Non-applicable	Non-applicable	Non-applicable	0,2351 mg/m³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Xylene	Oral	Non-applicable	Non-applicable	1,6 mg/kg	Non-applicable
CAS: 1330-20-7	Dermal	Non-applicable	Non-applicable	108 mg/kg	Non-applicable
EC: 215-535-7	Inhalation	Non-applicable	Non-applicable	14,8 mg/m³	Non-applicable
2-butoxyethanol	Oral	13,4 mg/kg	Non-applicable	3,2 mg/kg	Non-applicable
CAS: 111-76-2	Dermal	44,5 mg/kg	Non-applicable	38 mg/kg	Non-applicable
EC: 203-905-0	Inhalation	426 mg/m³	123 mg/m³	49 mg/m³	Non-applicable
Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%)	Oral	Non-applicable	Non-applicable	11 mg/kg	Non-applicable
CAS: 64742-95-6	Dermal	Non-applicable	Non-applicable	11 mg/kg	Non-applicable
EC: 918-668-5	Inhalation	Non-applicable	Non-applicable	32 mg/m³	Non-applicable
Butanone oxime	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 96-29-7	Dermal	1,5 mg/kg	Non-applicable	0,78 mg/kg	Non-applicable
EC: 202-496-6	Inhalation	Non-applicable	Non-applicable	2,7 mg/m³	2 mg/m³
4-methylpentan-2-one	Oral	Non-applicable	Non-applicable	4,2 mg/kg	Non-applicable
CAS: 108-10-1	Dermal	Non-applicable	Non-applicable	4,2 mg/kg	Non-applicable
EC: 203-550-1	Inhalation	Non-applicable	Non-applicable	14,7 mg/m³	Non-applicable
calcium bis(2-ethylhexanoate)	Oral	Non-applicable	Non-applicable	2,83 mg/kg	Non-applicable
CAS: 136-51-6	Dermal	Non-applicable	Non-applicable	2,83 mg/kg	Non-applicable
EC: 205-249-0	Inhalation	Non-applicable	Non-applicable	9,86 mg/m³	Non-applicable
Dipropylene Glycol Methyl Ether	Oral	Non-applicable	Non-applicable	1,67 mg/kg	Non-applicable
CAS: 34590-94-8	Dermal	Non-applicable	Non-applicable	15 mg/kg	Non-applicable
EC: 252-104-2	Inhalation	Non-applicable	Non-applicable	37,2 mg/m³	Non-applicable
Cobalt bis(2-ethylhexanoate)	Oral	Non-applicable	Non-applicable	0,0558 mg/kg	Non-applicable
CAS: 136-52-7	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 205-250-6	Inhalation	Non-applicable	Non-applicable	Non-applicable	0,037 mg/m³

PNEC:

Identification				
Xylene	STP	6,58 mg/L	Fresh water	0,327 mg/L
CAS: 1330-20-7	Soil	2,31 mg/kg	Marine water	0,327 mg/L
EC: 215-535-7	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	12,46 mg/kg

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
2-butoxyethanol	STP	463 mg/L	Fresh water	8,8 mg/L
CAS: 111-76-2	Soil	3,13 mg/kg	Marine water	0,88 mg/L
EC: 203-905-0	Intermittent	9,1 mg/L	Sediment (Fresh water)	34,6 mg/kg
	Oral	20 g/kg	Sediment (Marine water)	Non-applicable
Butanone oxime	STP	177 mg/L	Fresh water	0,256 mg/L
CAS: 96-29-7	Soil	Non-applicable	Marine water	Non-applicable
EC: 202-496-6	Intermittent	0,118 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
4-methylpentan-2-one	STP	27,5 mg/L	Fresh water	0,6 mg/L
CAS: 108-10-1	Soil	1,3 mg/kg	Marine water	0,06 mg/L
EC: 203-550-1	Intermittent	1,5 mg/L	Sediment (Fresh water)	8,27 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,83 mg/kg
calcium bis(2-ethylhexanoate)	STP	71,7 mg/L	Fresh water	0,36 mg/L
CAS: 136-51-6	Soil	1,06 mg/kg	Marine water	0,036 mg/L
EC: 205-249-0	Intermittent	0,493 mg/L	Sediment (Fresh water)	6,37 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,637 mg/kg
Dipropylene Glycol Methyl Ether	STP	4168 mg/L	Fresh water	19 mg/L
CAS: 34590-94-8	Soil	2,74 mg/kg	Marine water	1,9 mg/L
EC: 252-104-2	Intermittent	190 mg/L	Sediment (Fresh water)	70,2 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	7,02 mg/kg
Cobalt bis(2-ethylhexanoate)	STP	0,37 mg/L	Fresh water	0,00051 mg/L
CAS: 136-52-7	Soil	7,9 mg/kg	Marine water	0,00236 mg/L
EC: 205-250-6	Intermittent	Non-applicable	Sediment (Fresh water)	9,5 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	9,5 mg/kg

8.2 Exposure controls:

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

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.
All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

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

C.- Specific protection for the hands

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

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

D.- Ocular and facial protection

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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

E.- Body protection

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

F.- Additional emergency measures

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

Environmental exposure controls:

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

Volatile organic compounds:

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

V.O.C. (Supply):	60,47 % weight
V.O.C. density at 20 ºC:	586,53 kg/m³ (586,53 g/L)
Average carbon number:	7,91
Average molecular weight:	107,04 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 ºC:	Liquid
Appearance:	Viscous
Colour:	Yellowish
Odour:	Solvent
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	139 ºC
Vapour pressure at 20 ºC:	714 Pa
Vapour pressure at 50 ºC:	3948,6 Pa (3,95 kPa)
Evaporation rate at 20 ºC:	Non-applicable *

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

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Product description:

Density at 20 ºC:	920 - 1020 kg/m³
Relative density at 20 ºC:	0,92 - 1,02
Dynamic viscosity at 20 ºC:	373 - 377 cP
Kinematic viscosity at 20 ºC:	387 cSt
Kinematic viscosity at 40 ºC:	>20,5 cSt
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 ºC:	Non-applicable *
Partition coefficient n-octanol/water 20 ºC:	Non-applicable *
Solubility in water at 20 ºC:	Non-applicable *
Solubility properties:	Immiscible
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	26 ºC
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	238 ºC
Lower flammability limit:	Not available
Upper flammability limit:	Not available

Explosive:

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

9.2 Other information:

Surface tension at 20 ºC:	Non-applicable *
Refraction index:	Non-applicable *

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

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

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

10.2 Chemical stability:

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

10.3 Possibility of hazardous reactions:

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

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

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

10.5 Incompatible materials:

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

10.6 Hazardous decomposition products:

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SECTION 10: STABILITY AND REACTIVITY (continued)

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:

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

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health .

Dangerous health implications:

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

A- Ingestion (acute effect):

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

B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

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

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

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

- Carcinogenicity: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with carcinogenic effects. For more information see section 3.
  IARC: Xylene (3); 4-methylpentan-2-one (2B); 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

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

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

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

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

H- Aspiration hazard:

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

Other information:

*** Changes with regards to the previous version*

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SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Xylene	LD50 oral	2100 mg/kg	Rat
CAS: 1330-20-7	LD50 dermal	1100 mg/kg (ATEi)	Rat
EC: 215-535-7	LC50 inhalation	11 mg/L (4 h) (ATEi)	
Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%)	LD50 oral	3492 mg/kg	Rat
CAS: 64742-95-6	LD50 dermal	3160 mg/kg	Rabbit
EC: 918-668-5	LC50 inhalation	6193 mg/L (4 h)	Rat
2-butoxyethanol	LD50 oral	1414 mg/kg	Rat
CAS: 111-76-2	LD50 dermal	1060 mg/kg	Rabbit
EC: 203-905-0	LC50 inhalation	11 mg/L (4 h)	Rat
Butanone oxime	LD50 oral	2100 mg/kg	Rat
CAS: 96-29-7	LD50 dermal	1100 mg/kg	Rat
EC: 202-496-6	LC50 inhalation	>20 mg/L	
4-methylpentan-2-one	LD50 oral	2080 mg/kg	
CAS: 108-10-1	LD50 dermal	>2000 mg/kg	
EC: 203-550-1	LC50 inhalation	>20 mg/L	
calcium bis(2-ethylhexanoate)	LD50 oral	2043 mg/kg	Rat
CAS: 136-51-6	LD50 dermal	>2000 mg/kg	
EC: 205-249-0	LC50 inhalation	>5 mg/L	
Dipropylene Glycol Methyl Ether	LD50 oral	>2000 mg/kg	
CAS: 34590-94-8	LD50 dermal	>2000 mg/kg	
EC: 252-104-2	LC50 inhalation	>20 mg/L	
Cobalt bis(2-ethylhexanoate)	LD50 oral	>2000 mg/kg	
CAS: 136-52-7	LD50 dermal	>2000 mg/kg	
EC: 205-250-6	LC50 inhalation	>5 mg/L	

Acute Toxicity Estimate (ATE mix):

	ATE mix	Ingredient(s) of unknown toxicity
Oral	70700 mg/kg (Calculation method)	0 %
Dermal	1910,2 mg/kg (Calculation method)	0 %
Inhalation	19,13 mg/L (4 h) (Calculation method)	0 %

*** Changes with regards to the previous version*

SECTION 12: ECOLOGICAL INFORMATION **

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

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
Xylene	LC50	13.5 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 1330-20-7	EC50	3.4 mg/L (48 h)	Ceriodaphnia dubia	Crustacean
EC: 215-535-7	EC50	10 mg/L (72 h)	Skeletonema costatum	Algae
2-butoxyethanol	LC50	1490 mg/L (96 h)	Lepomis macrochirus	Fish
CAS: 111-76-2	EC50	1815 mg/L (48 h)	Daphnia magna	Crustacean
EC: 203-905-0	EC50	911 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%)	LC50	1 - 10 mg/L (96 h)		Fish
CAS: 64742-95-6	EC50	1 - 10 mg/L		Crustacean
EC: 918-668-5	EC50	1 - 10 mg/L		Algae
Butanone oxime	LC50	843 mg/L (96 h)	Pimephales promelas	Fish
CAS: 96-29-7	EC50	750 mg/L (48 h)	Daphnia magna	Crustacean
EC: 202-496-6	EC50	83 mg/L (72 h)	Scenedesmus subspicatus	Algae

*** Changes with regards to the previous version*

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SECTION 12: ECOLOGICAL INFORMATION ** (continued)

Identification		Acute toxicity	Species	Genus
4-methylpentan-2-one	LC50	900 mg/L (48 h)	Leuciscus idus	Fish
CAS: 108-10-1	EC50	862 mg/L (24 h)	Daphnia magna	Crustacean
EC: 203-550-1	EC50	980 mg/L (48 h)	Scenedesmus subspicatus	Algae
calcium bis(2-ethylhexanoate)	LC50	270 mg/L (96 h)	N/A	Fish
CAS: 136-51-6	EC50	Non-applicable		
EC: 205-249-0	EC50	Non-applicable		
Dipropylene Glycol Methyl Ether	LC50	10000 mg/L (96 h)	Pimephales promelas	Fish
CAS: 34590-94-8	EC50	1919 mg/L (48 h)	Daphnia magna	Crustacean
EC: 252-104-2	EC50	Non-applicable		
Cobalt bis(2-ethylhexanoate)	LC50	0.1 - 1 mg/L (96 h)		Fish
CAS: 136-52-7	EC50	0.1 - 1 mg/L		Crustacean
EC: 205-250-6	EC50	0.1 - 1 mg/L		Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Xylene	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 1330-20-7	COD	Non-applicable	Period	28 days
EC: 215-535-7	BOD5/COD	Non-applicable	% Biodegradable	88 %
2-butoxyethanol	BOD5	0.71 g O2/g	Concentration	100 mg/L
CAS: 111-76-2	COD	2.2 g O2/g	Period	14 days
EC: 203-905-0	BOD5/COD	0.32	% Biodegradable	96 %
Butanone oxime	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 96-29-7	COD	Non-applicable	Period	28 days
EC: 202-496-6	BOD5/COD	Non-applicable	% Biodegradable	24 %
4-methylpentan-2-one	BOD5	2.06 g O2/g	Concentration	100 mg/L
CAS: 108-10-1	COD	2.16 g O2/g	Period	14 days
EC: 203-550-1	BOD5/COD	0.95	% Biodegradable	84 %
calcium bis(2-ethylhexanoate)	BOD5	Non-applicable	Concentration	20 mg/L
CAS: 136-51-6	COD	Non-applicable	Period	28 days
EC: 205-249-0	BOD5/COD	Non-applicable	% Biodegradable	99 %
Dipropylene Glycol Methyl Ether	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 34590-94-8	COD	0.00202 g O2/g	Period	28 days
EC: 252-104-2	BOD5/COD	Non-applicable	% Biodegradable	73 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Xylene	BCF	9
CAS: 1330-20-7	Pow Log	2.77
EC: 215-535-7	Potential	Low
2-butoxyethanol	BCF	3
CAS: 111-76-2	Pow Log	0.83
EC: 203-905-0	Potential	Low
Butanone oxime	BCF	5
CAS: 96-29-7	Pow Log	0.59
EC: 202-496-6	Potential	Low
4-methylpentan-2-one	BCF	2
CAS: 108-10-1	Pow Log	1.31
EC: 203-550-1	Potential	Low
calcium bis(2-ethylhexanoate)	BCF	
CAS: 136-51-6	Pow Log	2.96
EC: 205-249-0	Potential	
Dipropylene Glycol Methyl Ether	BCF	1
CAS: 34590-94-8	Pow Log	-0.06
EC: 252-104-2	Potential	Low

*** Changes with regards to the previous version*

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SECTION 12: ECOLOGICAL INFORMATION ** (continued)

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Xylene	Koc	202	Henry	524,86 Pa·m³/mol
CAS: 1330-20-7	Conclusion	Moderate	Dry soil	Yes
EC: 215-535-7	Surface tension	Non-applicable	Moist soil	Yes
2-butoxyethanol	Koc	8	Henry	1,621E-1 Pa·m³/mol
CAS: 111-76-2	Conclusion	Very High	Dry soil	No
EC: 203-905-0	Surface tension	2,729E-2 N/m (25 ºC)	Moist soil	Yes
Butanone oxime	Koc	3	Henry	Non-applicable
CAS: 96-29-7	Conclusion	Very High	Dry soil	Non-applicable
EC: 202-496-6	Surface tension	2,57E-2 N/m (25 ºC)	Moist soil	Non-applicable
4-methylpentan-2-one	Koc	Non-applicable	Henry	Non-applicable
CAS: 108-10-1	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 203-550-1	Surface tension	2,35E-2 N/m (25 ºC)	Moist soil	Non-applicable
calcium bis(2-ethylhexanoate)	Koc	Non-applicable	Henry	2,94E-1 Pa·m³/mol
CAS: 136-51-6	Conclusion	Non-applicable	Dry soil	Yes
EC: 205-249-0	Surface tension	Non-applicable	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

*** Changes with regards to the previous version*

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Dangerous

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

HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

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

Regulations related to waste management:

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

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

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:

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SECTION 14: TRANSPORT INFORMATION (continued)

14.1	**UN number:**	UN1263
14.2	**UN proper shipping name:**	PAINT
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Special regulations:	163, 367, 650
	Tunnel restriction code:	D/E
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 39-18:

14.1	**UN number:**	UN1263
14.2	**UN proper shipping name:**	PAINT
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Special regulations:	223, 955, 163, 367
	EmS Codes:	F-E, S-E
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
	Segregation group:	Non-applicable
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2020:

14.1	**UN number:**	UN1263
14.2	**UN proper shipping name:**	PAINT
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Physico-Chemical properties:	see section 9
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

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

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

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

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

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

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SECTION 15: REGULATORY INFORMATION (continued)

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c		5000	50000

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

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.
Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:
'For professional users only'.
Shall not be used in:
—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
—tricks and jokes,
—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

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

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

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

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

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):
· New declared substances
calcium bis(2-ethylhexanoate) (136-51-6)
· Removed substances
2-ethylhexanoic acid, zirconium salt (22464-99-9)
CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):
· Supplementary information

Texts of the legislative phrases mentioned in section 2:

H317: May cause an allergic skin reaction
H315: Causes skin irritation
H335: May cause respiratory irritation
H373: May cause damage to organs through prolonged or repeated exposure (Oral)
H312+H332: Harmful in contact with skin or if inhaled
H226: Flammable liquid and vapour
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:

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

CLP Regulation (EC) No 1272/2008:

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SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Acute Tox. 4: H312 - Harmful in contact with skin
Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled
Acute Tox. 4: H332 - Harmful if inhaled
Aquatic Acute 1: H400 - Very toxic to aquatic life
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Carc. 2: H351 - Suspected of causing cancer
Eye 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. 1B: H360 - May damage fertility or the unborn child
Repr. 2: H361d - Suspected of damaging the unborn child.
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction
Skin Sens. 1A: H317 - May cause an allergic skin reaction
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral)
STOT SE 3: H335 - May cause respiratory irritation
STOT SE 3: H336 - May cause drowsiness or dizziness

Classification procedure:

Skin Sens. 1A: Calculation method
Skin Irrit. 2: Calculation method
STOT SE 3: Calculation method
STOT RE 2: Calculation method
Acute Tox. 4: Calculation method
Flam. Liq. 3: Calculation method (2.6.4.3)
Eye Irrit. 2: Calculation method

Advice related to training:

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

Principal bibliographical sources:

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

Abbreviations and acronyms:

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

- END OF SAFETY DATA SHEET -