



NEUCEFENOL
Code: 29.41



Version 1 Date of compilation: 07/05/2020

Date of printing: 07/05/2020

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

1.1	<u>PRODUCT IDENTIFIER:</u>	NEUCEFENOL Code: 29.41
1.2	<u>RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:</u> <u>Intended uses (main technical functions):</u> Envenizamento e protecção de metais. <u>Sectors of use:</u> Industrial manufacturing (SU3). <u>Uses advised against:</u> This product is not recommended for any use or sector of use (industrial, professional or consumer) other than those previously listed as 'Intended or identified uses'. <u>Restrictions on manufacture, placing on market and use, according to Annex XI of Regulation (EC) No. 1907/2006:</u> Not restricted.	[X] Industrial [] Professional [] Consumers
1.3	<u>DETAILS OF THE SUPPLIER OF THE SAFETY DATASHEET:</u> NEUCE - Indústria de Tintas, S. A Rua Francisco Rocha - Apt. 4514 - 3700-892 - Romariz S.M (Portugal) Phone: +351 256 840040 - Fax: +351 256 840049 <u>E-mail address of the person responsible for the Safety Data Sheet:</u> e-mail: geral@neuce.pt	
1.4	<u>EMERGENCY TELEPHONE NUMBER</u> +351 256 840041 (9:00-18:30 h.) (working hours)	

SECTION 2 : HAZARDS IDENTIFICATION

2.1	<u>CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:</u> Classification of mixtures is carried out in accordance with the following principles: a) when data (tests) for the classification of mixtures are available, generally is carried out based on these data, b) in the absence of data (tests) for mixtures are generally used interpolation or extrapolation methods of assessing the risk, using the available data for mixtures similarly classified, and c) in the absence of tests and information which would allow to apply interpolation or extrapolation techniques, methods are used to classify risk assessment based on the data of the individual components in the mixture. <u>Classification in accordance with Regulation (EU) No. 1272/2008-2018/1480 (CLP):</u> WARNING: Flam. Liq. 3:H226 Skin Irrit. 2:H315 Eye Irrit. 2:H319 Repr. 2:H361d STOT SE (narcosis) 3:H336 Aquatic Chronic 3:H412 EUH066					
	<u>Danger class</u>	<u>Classification of the mixture</u>	<u>Cat.</u>	<u>Routes of exposure</u>	<u>Target organs</u>	<u>Effects</u>
	<u>Physicochemical:</u> 	Flam. Liq. 3:H226 Skin Irrit. 2:H315 Eye Irrit. 2:H319	a) Cat.3 c) Cat.2 c) Cat.2	- Skin Eyes	- Skin Eyes	- Irritation Irritation
	<u>Human health:</u> 	Repr. 2:H361d STOTSE (narcosis) 3:H336 Aquatic Chronic 3:H412 EUH066	c) Cat.2 c) Cat.3 c) Cat.3 c)	Inhalation Inhalation - Skin	Reproductive system CNS - Skin	Foetus Narcosis - Dryness, Cracking
	<u>Environment:</u>					
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	<u>LABEL ELEMENTS:</u> 	This product is labelled with the signal word WARNING in accordance with Regulation (EU) No. 1272/2008-2018/1480 (CLP)
	<u>Hazard statements:</u> H226 H361d H319 H315 H336 H412	Flammable liquid and vapour. Suspected of damage the unborn child if inhaled. Causes serious eye irritation. Causes skin irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.
	<u>Precautionary statements:</u> P210 P243 P370+P378 P280F P303+P361+P353-P352-P312	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharges. In case of fire: Use water spray, alcohol-resistant foam, dry chemical powder, carbon dioxide, AFFF to extinguish. Wear protective gloves, clothing and eye protection. In case of inadequate ventilation wear respiratory protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash with plenty of soap and water. Call a POISON CENTER or doctor if you feel unwell.



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P305+P351+P338
P273-P501c

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Avoid release to the environment. Dispose of contents/container as hazardous waste.

Supplementary statements:

None.

Substances that contribute to classification:

Hydrocarbons C10 aromatics (naphthalene <1%)
2-methoxy-1-methylethyl acetate
Toluene
Ethylmethylketone

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: No other relevant adverse effects are known.

Other adverse human health effects: No other relevant adverse effects are known.

Other negative environmental effects: Does not contain substances that fulfil the PBT/vPvB criteria.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1

SUBSTANCES:

Not applicable (mixture).

3.2

MIXTURES:

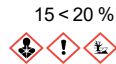
This product is a mixture.

Chemical description:

Mixture of pigments, resins and additives in organic solvents.

HAZARDOUS INGREDIENTS:

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



15 < 20 %

Hydrocarbons C10 aromatics (naphthalene <1%)

(CAS: 64742-94-5), List No. 918-811-1

CLP: Danger: STOT SE (narco sis)3; H336 | Asp. Tox. 1:H304 | Aquatic Chronic 2:H411 | EUH066

Autoclassified
< REACH



10 < 15 %

2-methoxy-1-methylethyl acetate

CAS: 108-65-6, EC: 203-603-9

CLP: Warning: Flam. Liq. 3:H226 | STOT SE (narco sis) 3:H336

REACH: 01-21 194 757 91 -29

Index No. 607-195-00-7
< REACH



5 < 10 %

Toluene

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

CLP: Danger: Flam. Liq. 2:H225 | Skin Irrit. 2:H315 | Repr. 2:H361fd | STOT SE (narco sis) 3:H336 | STOTRE 2:H373J | Asp. Tox. 1:H304 | Aquatic Chronic 3:H412

REACH: 01-21 194 713 10-51

Index No. 601-021-00-3
< REACH



2,5 < 5 %

Ethylmethylketone

CAS: 78-93-3, EC: 201-159-0

CLP: Danger: Flam. Liq. 2:H225 | Eye Irrit. 2:H319 | STOT SE (narco sis) 3:H336 | EUH066

REACH: 01-21 194 572 90-43

Index No. 606-002-00-3
< REACH / ATP01



1 < 2 %

Butan-1-ol

CAS: 71-36-3, EC: 200-751-6

CLP: Danger: Flam. Liq. 3:H226 | Acute Tox (oral) 4:H302 | Skin Irrit. 2:H315 | Eye Dam. 1:H318 | STOT SE (irrit) 3:H336 | STOT SE (narco sis) 3:H336

Index No. 603-004-00-6
< 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 16/01/2020.

Substances SVHC subject to authorisation, included in Annex XV of Regulation (EC) no. 1907/2006:

None

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

None

PERSISTENT, BIOACCUMULABLE AND TOXIC PBT OR VERY PERSISTENT AND VERY BIOACCUMULABLE vPvB SUBSTANCES:

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



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SECTION 4 : FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST-AID MEASURES:



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

Route of exposure	Symptoms and effects, acute and delayed	Description of first-aid measures
<u>Inhalation:</u> 	Vapours may cause drowsiness and dizziness.	Remove the patient out of the contaminated area into the fresh air. If breathing is irregular or stops, administer artificial respiration. If the person is unconscious, place in appropriate recovery position. Keep the patient warm and at rest until medical attention arrives.
<u>Skin:</u> 	Skin contact causes redness.	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 trimers.
<u>Eyes:</u> 	Contact with the eyes produces redness and pain.	Remove contact lenses. Rinse eyes copiously by irrigation with plenty of clean, fresh water for at least 15 minutes, holding the eyelids apart, until the irritation is reduced. Call a physician immediately.
<u>Ingestion:</u>	If swallowed, may cause irritation of the mouth, throat and oesophagus.	If swallowed, seek immediate medical attention. Do not induce vomiting, due to the risk of aspiration. Keep the patient at rest.

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

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

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

Notes to physician: 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:

In case of fire, use water spray, alcohol resistant foam, dry chemical powder, carbon dioxide, AFFF.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

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

5.3 ADVICE FOR FIREFIGHTERS:

Special protective equipment: Depending on magnitude of fire, heat-proof protective clothing may be required, appropriate independent breathing apparatus, gloves, protective glasses or face masks and boots. If the fire-proof protective equipment is not available or is not being used, combat fire from a sheltered position or from a safe distance. The standard EN469 provides a basic level of protection for chemical incidents.
Other recommendations: Cool with water the tanks, cisterns or containers close to sources of heat or fire. Bear in mind the direction of the wind. Do not allow fire-fighting residue to enter drains, sewers or water courses.

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.

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. Avoid use of solvents. Keep the remains in a closed container.

6.4 REFERENCE TO OTHER SECTIONS:

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



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SECTION 7 : HANDLING AND STORAGE E

- 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:
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. The zones with risk of explosion should be marked. Use instruments systems and protective equipment adequate to the classification of zones, according to the health and safety at work laws, in accordance with Directive 2016/34/EU and 99/92/EC. Electrical equipment should be protected to the appropriate standard. No tools with a potential for sparks should be used. Elaborate the document 'Protection against explosions'.
- Flash point : 30. °C CLP 2.6.4.3.
- Autoignition temperature : 355* °C
- Upper/lower flammability or explosive limits : 1.4* - 9.4 % Volume 25°C
- Upper/lower flammability or explosive limits : 1.0* - 12.4 % Volume 30°C
Recommendations for the prevention of toxicological risks:
It is advisable pregnant women not be employed in any process in which this product is used. Do not eat, drink or smoke in application and drying areas. 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:
Avoid any spillage in the environment. Pay special attention to the cleaning water. 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. 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. Keep container in a well-ventilated place. In order to avoid leakages, the containers, after use, should be closed carefully and placed in a vertical position. Keep container tightly closed. For more information, see section 10.
Class of storage : According to current legislation.
Maximum storage period : 12. months
Temperature interval : min: 5. °C, max: 35. °C (recommended).
Incompatible materials:
Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.
Type of packaging:
According to current legislation.
Limit quantity (Seveso II): Directive 2012/18/EU:
- Named dangerous substances/mixtures: None
- Hazard categories and lower-/upperthreshold quantities in tonnes (t):
· Physical hazards: Flammable liquid and vapour (P5c) (5000t/50000t).
· Health hazards: Not applicable
· Environmental hazards: Not applicable
· Other hazards: Not applicable.
- Threshold quantity for the application of lower-tier requirements: 5000 tons
- Threshold quantity for the application of upper-tier requirements: 50000 tons
- Remarks:
The qualifying quantities set out above relate to each establishment. The quantities to be considered for the application of the relevant Articles are the maximum quantities which are present or are likely to be present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2 % of the relevant qualifying quantity shall be ignored for the purposes of calculating the total quantity present, if their location within an establishment is such that it cannot act as an initiator of a major accident elsewhere at that establishment. For more details, see note 4 of Annex I of the Seveso Directive.
- 7.3 **SPECIFIC END USES:**
For the use of this product particular recommendations apart from that already indicated are not available.



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SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1

CONTROL PARAMETERS:

If a product contains ingredients with exposure limits, may be necessary a personnel monitoring, work place or biological, to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to EN689, EN14042 and EN482 standard concerning methods for assessing the exposure by inhalation to chemical agents, and exposure to chemical and biological agents. Reference should be also made to national guidance documents for methods for the determination of dangerous substances.

OCCUPATIONAL EXPOSURE LIMIT VALUES (TLV)

AGCH 2018	Year	TLVTWA		TLVSTEL		Remarks
		ppm	mgm3	ppm	mgm3	
Hydrocarbons C10 aromatics (naphthalene <1%)		100.	525.	-	-	Recommended Recommended Skin
2-methoxy-1-methylethyl acetate		50.	275.	100.	550.	
Toluene	2007	20.	75.	-	-	A4 , BEI BEI
Ethylmethylketone	1976	200.	590.	300.	885.	
Butan-1-ol	1998	20.	61.	-	-	

TLV - Threshold Limit Value, TWA - Time Weighted Average, STEL - Short Term Exposure Limit.

Skin - Danger of cutaneous absorption.

A4 - Non classified as carcinogenic in humans.

BEI - Biological exposure index (biological monitoring).

Dermal (Vd): Means that, in exposures to this substance, the contribution by the cutaneous route, including the mucous membranes and eyes, may result significant for the overall body content if no measures are taken to prevent absorption. There are some chemicals for which dermal absorption, both in liquid and vapour phases, can be very high, and this route of entry may be or equal or greater importance even than inhalation pathway. In these situations, the use of a biological control is essential in order to quantify the overall amount of contaminant absorbed.

BIOLOGICAL LIMIT VALUES:

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

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

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

- Methyl ethyl ketone (2012): Biological determinant: methyl ethyl ketone in urine, BEI: 2 mg/l, Sampling time: end of shift (2), Notation: (Ns).

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

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

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

(Ns) Non-specific. The determinant is non-specific, since it is also observed after exposure to other chemicals.

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

2-methoxy-1-methylethyl acetate

Toluene

Ethylmethylketone

DNEL Inhalation

mg/m³

- (a) 275. (c)
384. (a) 192. (c)
- (a) 600. (c)

DNEL Cutaneous

mg/kgbw/d

- (a) 154. (c)
s/r (a) 384. (c)
- (a) 1161. (c)

DNEL Oral

mg/kgbw/d

- (a) - (c)
- (a) - (c)
- (a) - (c)

Derived no-effect level, workers:

- Local effects, acute and chronic

2-methoxy-1-methylethyl acetate

Toluene

Ethylmethylketone

DNEL Inhalation

mg/m³

- (a) - (c)
384. (a) 192. (c)
- (a) - (c)

DNEL Cutaneous

mg/cm²

- (a) - (c)
s/r (a) s/r (c)
- (a) - (c)

DNEL Eyes

mg/cm²

- (a) - (c)
- (a) - (c)
- (a) - (c)

Derived no-effect level, general population:

Not applicable (product for industrial use).

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

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

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



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PREDICTED NO-EFFECT CONCENTRATION (PNEC):

Predicted no-effect concentration, aquatic organisms:

- Fresh water, marine water and intermittent release:

2-methoxy-1-methylethyl acetate
Toluene
Ethylmethylketone

PNEC Fresh water

mg/l
0.635
0.680
55.8

PNEC Marine

mg/l
0.0635
0.680
55.8

PNEC Intermittent

mg/l
6.35
0.680
55.8

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

2-methoxy-1-methylethyl acetate
Toluene
Ethylmethylketone

PNEC STP

mg/l
100.
13.6
709.

PNEC Sediments

mg/kg dwt
3.29
16.4
285.

PNEC Sediments

mg/kg dwt
0.329
16.4
285.

Predicted no-effect concentration, terrestrial organisms:

- Air, soil and effects for predators and humans:

2-methoxy-1-methylethyl acetate
Toluene
Ethylmethylketone

PNEC Air

mg/m³
-
-
-

PNEC Soil

mg/kg dwt
0.290
2.89
22.5

PNEC Oral

mg/kg dwt
-
-
1000.

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

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 product.

Protection of eyes and face: It is recommended to install emergency eye baths close to the working area.

Protection of hands and skin: It is recommended to install emergency showers close to the working area. Barrier creams may help to protect the exposed areas of the skin. Barrier creams should not be applied once exposure has occurred.

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

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

Mask:



Mask for gases and vapours (EN14387). Class 1: low capacity up to 1000 ppm, Class 2: medium capacity up to 5000 ppm, Class 3: high capacity up to 10000 ppm. In order to obtain a suitable protection level, the filter class must be selected depending on the type and concentration of the contaminating agents present, in accordance with the specifications supplied by the filter producers.

Safety goggles:



Safety goggles 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 repeated or prolonged contact with the product is expected, gloves of protection level 5 or higher should be used, with a breakthrough time of >240 min. When short contact with the product is expected, use gloves with a protection level 2 or higher should be used, with a breakthrough time >30 min. The breakthrough time of the selected glove material should be in accordance with the pretended period of use. There are several factors (for example, temperature), they do in practice the period of use of a protective gloves resistant against chemicals is clearly lower than the established standard EN374. Due to the wide variety of circumstances and possibilities, the instructions/specifications provided by the glove supplier should be taken into account. The gloves should be immediately replaced when any sign of degradation is noted.

Boots:

No.

Apron:

No.

Clothing:

It is advisable personnel wear antistatic clothing made of natural fibre or high temperature resistant synthetic fibre.

Thermal hazards:

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

ENVIRONMENTAL EXPOSURE CONTROLS:

Avoid any spillage in the environment.

Spills on the soil: Prevent contamination of soil.

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

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

Emissions to the atmosphere: Not applicable.



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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Appearance

- Physical state : Liquid.
- Colour : Colourless.
- Odour : Characteristic
- Odour threshold : Not available (mixture).

pH-value

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

Change of state

- Melting point : Not applicable (mixture).
- Initial boiling point : 79.6* °C at 760 mmHg

Density

- Vapour density : 2.83* at 20°C 1 atm. Relative air
- Relative density : 1.105 ± 0.1 at 20/4°C Relative water

Stability

- Decomposition temperature : Not available (technical impossibility to obtain the data).

Viscosity

- Dynamic viscosity : 193. cps 20°C
- Kinematic viscosity : 60. mm²/s at 40°C
- Viscosity (flow time) : 50. ± 8. sec.FC4 20°C

Volatility

- Evaporation rate : Not available (lack of data).
- Vapour pressure : 12.8* mmHg at 20°C
- Vapour pressure : 6.3* kPa at 50°C

Solubility(ies)

- Solubility in water : Not miscible
- Liposolubility : Not available (mixture untested).
- Partition coefficient: n-octano/water : Not applicable (mixture).

Flammability

- Flash point : 30. °C CLP 2.6.4.3.
- Upper/lower flammability or explosive limits : 1.4* - 9.4 % Vdume 25°C
- Upper/lower flammability or explosive limits : 1.0* - 12.4 % Vdume 30°C
- Autoignition temperature : 355* °C

Explosive properties

Not available.

Oxidizing properties

Not classified as oxidizing product.

*Estimated values based on the substances composing the mixture.

9.2 OTHER INFORMATION

- Heat of combustion : 4707* Kcal/kg
- Solids : 38.5 % Weight
- VOC (supply) : 670.0 g/l

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

SECTION 10 : STABILITY AND REACTIVITY

10.1 REACTIVITY

Corrosivity to metals: It is not corrosive to metals.
Pyrophorical properties: It is not pyrophoric.

10.2 CHEMICAL STABILITY:

Stable under recommended storage and handling conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

Possible dangerous reaction with oxidizing agents, acids.

10.4 CONDITIONS TO AVOID:

Heat: Keep away from sources of heat.
Light: If possible, avoid direct contact with sunlight.
Air: The product is not affected by exposure to air, but should not be left the containers open.
Humidity: Avoid extreme humidity conditions.
Pressure: Not relevant.
Shock: The product is not sensitive to shocks, but as a recommendation of a general nature should be avoided bumps and rough handling to avoid dents and breakage of packaging, especially when the product is handled in large quantities, and during loading and download operations.

10.5 INCOMPATIBLE MATERIALS:

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

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

As consequence of thermal decomposition, hazardous products may be produced: sulfur oxides, halogenated compounds.



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SECTION 11 : TOXICOLOGICAL INFORMATION

No experimental toxicological data on the preparation is available. The toxicological classification for these mixture has been carried out by using the conventional calculation method of the Regulation (EU) No. 1272/2008~2018/1480 (CLP).

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:ACUTE TOXICITY:Dose and lethal concentrations

for individual ingredients :

Hydrocarbons C10 aromatics (naphthalene <1%)
2-methoxy-1-methylethyl acetate
Toluene
Ethylmethylketone
Butan-1-ol

LD50 (OECD 401)

mg/kg bw oral

> 5000. Rat
8532. Rat
5580. Rat
2737. Rat
790. Rat

LD50 (OECD 402)

mg/kg bw cutaneous

> 2000. Rabbit
> 5000. Rat
12124. Rabbit
6480. Rabbit
3430. Rabbit

LC50 (OECD 403)mg/m³ 4h inhalation

> 5200. Rat
> 35700. Rat
> 28100. Rat
> 23500. Rat
> 24665. Rat

Estimates of acute toxicity (ATE)

for individual ingredients :

Butan-1-ol

ATE

mg/kg bw oral

790.

ATE

mg/kg bw cutaneous

-

ATEmg/m³ 4h inhalation

-

(*) - Point estimates of acute toxicity corresponding to the classification category (see GHS/CLP Table 3.1.2). These values are designed to be used in the calculation of the ATE for classification of a mixture based on its components and do not represent test results.

(-) - The components that are assumed to have no acute toxicity at the upper threshold of category 4 for the corresponding exposure route are ignored.

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	Criteria
<u>Inhalation:</u> Not classified	ATE > 20000 mg/m ³	-	Not classified as a product with acute toxicity if inhaled (based on available data, the classification criteria are not met).	GHS/CLP 3.1.36
<u>Skin:</u> Not classified	ATE > 2000 mg/kg bw	-	Not classified as a product with acute toxicity in contact with skin (based on available data, the classification criteria are not met).	GHS/CLP 3.1.36
<u>Eyes:</u> Not classified	Not available	-	Not classified as a product with acute toxicity by eye contact (lack of data).	GHS/CLP 12.5
<u>Ingestion:</u> Not classified	ATE > 2000 mg/kg bw	-	Not classified as a product with acute toxicity if swallowed (based on available data, the classification criteria are not met).	GHS/CLP 3.1.36

GHS/CLP 3.1.36: Classification of mixtures based on ingredients of the mixture (additivity formula).

CORROSION / IRRITATION / SENSITISATION:

Danger class	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
<u>Respiratory corrosion/irritation:</u> Not classified	-	-	Not classified as a product corrosive or irritant by inhalation (based on available data, the classification criteria are not met).	GHS/CLP 12.6 3.8.3.4
<u>Skin corrosion/irritation:</u> 	Skin 	Cat.2	IRRITANT: Causes skin irritation.	GHS/CLP 3.2.3.3
<u>Serious eye damage/irritation:</u> 	Eyes 	Cat.2	IRRITANT: Causes serious eye irritation.	GHS/CLP 3.3.3.3
<u>Respiratory sensitisation:</u> Not classified	-	-	Not classified as a product sensitising by inhalation (based on available data, the classification criteria are not met).	GHS/CLP 3.4.3.3
<u>Skin sensitisation:</u> Not classified	-	-	Not classified as a product sensitising by skin contact (based on available data, the classification criteria are not met).	GHS/CLP 3.4.3.3

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

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

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



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ASPIRATION HAZARD:

Danger class	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
<u>Aspiration hazard:</u> Not classified	-	-	Not classified as a product hazardous by aspiration (based on available data, the classification criteria are not met).	GHS/CLP 31033.

GHS/CLP 31033: Classification of the mixture when data are available for all components or only for some components.

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

Effects	SE/RE	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
<u>Cutaneous:</u>	RE	Skin 	-	DEFATTENING: Repeated exposure may cause skin dryness or cracking.	GHS/CLP 124.
<u>Neurological:</u> 	SE	CNS 	Cat.3	NARCOSIS: May cause drowsiness or dizziness if inhaled.	GHS/CLP 3834.

GHS/CLP 3834: Classification of the mixture when data are available for all components or only for some components.

CMR EFFECTS:

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

Genotoxicity: It is not considered as a mutagenic product.

Toxicity for reproduction:

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

Toluene (Cat.2)

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

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

Routes of exposure: Not available.

Short-term exposure: May irritate the eyes and skin.

Long-term or repeated exposure:

INTERACTIVE EFFECTS:

Not available.

INFORMATION ABOUT TOXICOKINETICS, METABOLISM AND DISTRIBUTION:Dermal absorption:

This preparation contains the following substances for which dermal absorption can be very high: 2-methoxy-1-methylethyl acetate.

Basic toxicokinetics: Not available.

ADDITIONAL INFORMATION:

Not available.

SECTION 12 : ECOLOGICAL INFORMATION

No experimental ecotoxicological data on the preparation as such is available. The ecotoxicological classification for these mixture has been carried out by using the conventional calculation method of the Regulation (EU) No. 1272/2008-2018/1480 (CLP).

12.1

TOXICITY:Acute toxicity in aquatic environment

for individual ingredients:

Hydrocarbons C10 aromatics (naphthalene <1%)

2-methoxy-1-methylethyl acetate

Toluene

Ethylmethylketone

Butan-1-ol

LC50 (OECD 203)

mg/l-96hours

> 2.3 Fishes

134. Fishes

> 5.5 Fishes

2993. Fishes

1376. Fishes

EC50 (OECD 202)

mg/l-48hours

0.95 Daphnia

408. Daphnia

> 3.8 Daphnia

308. Daphnia

1328. Daphnia

EC50 (OECD 201)

mg/l-72hours

< 1. Algae

> 1000. Algae

> 13. Algae

1972. Algae

500. Algae

No observed effect concentration

2-methoxy-1-methylethyl acetate

Toluene

Butan-1-ol

NOEC (OECD 210)

mg/l-28days

1.4 Fishes

NOEC (OECD 211)

mg/l-21days

> 100. Daphnia

< 1. Daphnia

4.1 Daphnia

NOEC (OECD 201)

mg/l-72hours

> 10. Algae

Lowest observed effect concentration

Toluene

LOEC (OECD 210)

mg/l-28days

2.8 Fishes

LOEC (OECD 211)

mg/l-21days

LOEC (OECD 201)

mg/l-72hours

ASSESSMENT OF AQUATIC TOXICITY:

Aquatic toxicity	Cat.	Main hazards to the aquatic environment	Criteria
<u>Acute aquatic toxicity:</u> Not classified	-	Not classified as a hazardous product with acute toxicity to aquatic life (based on available data, the classification criteria are not met).	GHS/CLP 41.3553.
<u>Chronic aquatic toxicity:</u>	Cat.3	HARMFUL: Harmful to aquatic life with long lasting effects.	GHS/CLP 41.3554.

CLP 41.3553: Classification of a mixture for acute hazards, based on summation of classified components.

CLP 41.3554: Classification of a mixture for chronic (long term) hazards, based on summation of classified components.



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12.2	<u>PERSISTENCE AND DEGRADABILITY:</u> Not available.			
	<u>Aerobic biodegradation</u> for individual ingredients :	<u>DQO</u> mgO ₂ /g	<u>% DBO/DQO</u> 5 days 14 days 28 days	<u>Biodegradability</u>
	Hydrocarbons C10 aromatics (naphthalene <1%)	~ 3000.	~ 61.	Inherently
	2-methoxy-1-methylethyl acetate	1520.	~ 22. ~ 78. ~ 90.	Easy
	Toluene	2520.		Easy
	Ethylmethylketone	2440.	~ 98.	Easy
	Butan-1-ol	2590.	~ 68. ~ 92. ~ 99.	Easy
	Note: Biodegradability data correspond to an average of data from various bibliographic sources.			
12.3	<u>BIOACCUMULATIVE POTENTIAL:</u> Not available.			
	<u>Bioaccumulation</u> for individual ingredients :	<u>log Pow</u>	<u>BCF</u> L/kg	<u>Potential</u>
	Hydrocarbons C10 aromatics (naphthalene <1%)	3.30	70. (calculated)	Not available
	2-methoxy-1-methylethyl acetate	0.560	3.2 (calculated)	Not available
	Toluene	2.69	13. (calculated)	Not available
	Ethylmethylketone	0.290	3.2 (calculated)	Not available
	Butan-1-ol	0.880	3.2 (calculated)	Not available
12.4	<u>MOBILITY IN SOL:</u> Not available.			
	<u>Mobility</u> for individual ingredients :	<u>log Koc</u>	<u>Constant of Henry</u> Pa·m ³ /mol 20°C	<u>Potential</u>
	Hydrocarbons C10 aromatics (naphthalene <1%)	2.96		Not available
	2-methoxy-1-methylethyl acetate	0.230	0.42 (calculated)	Not available
	Toluene	2.57	680. (calculated)	Not available
	Ethylmethylketone	1.28	5.8 (calculated)	Not available
	Butan-1-ol	0.390	0.63 (calculated)	Not available
12.5	<u>RESULTS OF PBT AND VPVB ASSESSMENT:</u> Annex XII of Regulation (EC) no. 1907/2006: Does not contain substances that fulfil the PBT/vPvB criteria.			
12.6	<u>OTHER ADVERSE EFFECTS:</u> <u>Ozone depletion potential:</u> Not applicable. <u>Photochemical ozone creation potential:</u> Not available. <u>Earth global warming potential:</u> In case of fire or incineration liberates CO ₂ . <u>Endocrine disrupting potential:</u> Not available.			
SECTION 13 : DISPOSAL CONSIDERATIONS				
13.1	<u>WASTE TREATMENT METHODS:</u> Directive 2008/98/EC-Regulation (EU) no. 1357/2014: Take all necessary measures to prevent the production of waste whenever possible. Analyse possible methods for revaluation or recycling. Do not discharge into drains or the environment, dispose at an authorised waste collection point. Waste should be handled and disposed in accordance with current local and national regulations. For exposure controls and personal protection measures, see section 8. <u>Disposal of empty containers:</u> Directive 94/62/EC-2015/720/EU, Decision 2000/532/EC-2014/955/EU: Emptied containers and packaging should be disposed in accordance with currently local and national regulations. The classification of packaging as hazardous waste will depend on the degree of emptying of the same, being the holder of the residue responsible for their classification, in accordance with Chapter 15 01 of Decision 2000/532/EC, and forwarding to the appropriate final destination. With contaminated containers and packaging, adopt the same measures as for the product in itself. <u>Procedures for neutralising or destroying the product:</u> Controlled incineration in special facilities for chemical waste, in accordance with local regulations. Contains halogenated compounds. In the case of incineration, take all necessary measures in order to avoid production and emission of furanes and dioxines into the atmosphere above the legal limits allowed.			



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SECTION 14 : TRANSPORT INFORMATION

14.1	<u>UN NUMBER:</u> 1263
14.2	<u>UN PROPER SHIPPING NAME:</u> PAINT
14.3	<p><u>TRANSPORT HAZARD CLASS(ES):</u></p> <p><u>Transport by road (ADR 2019) and Transport by rail (RD 2019):</u></p> <ul style="list-style-type: none"> - Class: 3 - Packing group: III - Classification code: F1 - Tunnel restriction code: (D/E) - Transport category: 3, max ADR 1.1.3.6. 1000 L - Limited quantities: 5 L (see total exemptions ADR 3.4) - Transport document: Consignment paper. - Instructions in writing: ADR 5.4.3.4 <p><u>Transport by sea (MDG 39-18):</u></p> <ul style="list-style-type: none"> - Class: 3 - Packing group: III - Emergency Sheet (EmS): F-E, S_E - First Aid Guide (MFAG): 310,313 - Marine pollutant: No. - Transport document: Shipping Bill of lading. <p><u>Transport by air (ICAO/IATA2020):</u></p> <ul style="list-style-type: none"> - Class: 3 - Packing group: III - Transport document: Air Bill of lading. <p><u>Transport by inland waterways (ADN):</u> Not available.</p>
14.4	<u>PACKING GROUP:</u> See section 14.3
14.5	<u>ENVIRONMENTAL HAZARDS:</u> Not applicable.
14.6	<u>SPECIAL PRECAUTIONS FOR USER:</u> Ensure that persons transporting the product know what to do in case of accident or spill. Always transport in dosed containers that are upright and secure. Ensure adequate ventilation.
14.7	<u>TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE BC CODE:</u> Not applicable.



SECTION 15 : REGULATORY INFORMATION

15.1	<p><u>EU SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC:</u> The regulations applicable to this product generally are listed throughout this Safety Data Sheet.</p> <p><u>Restrictions on manufacture, placing on market and use:</u> See section 1.2</p> <p><u>Tactile warning of danger:</u> Not applicable (product for industrial use).</p> <p><u>Child safety protection:</u> Not applicable (the classification criteria are not met).</p> <p><u>OTHER REGULATIONS:</u></p> <p><u>Responsabilidade ambiental:</u> Utilização deste produto em Portugal fica sujeita ao regime de responsabilidade ambiental previsto no DL.147/2008.</p> <p><u>Control of the risks inherent in major accidents (Seveso III):</u> See section 7.2</p> <p><u>Other local legislations:</u> The receiver should verify the possible existence of local regulations applicable to the chemical.</p>
15.2	<u>CHEMICAL SAFETY ASSESSMENT:</u> A chemical safety assessment has not been carried out for this mixture.



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SECTION 16 : OTHER INFORMATION

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

Hazard statements according the Regulation (EU) No. 1272/2008-2018/1480 (CLP), Annex II

H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. EUH066 Repeated exposure may cause skin dryness or cracking. H361d Suspected of damage the unborn child if inhaled. H373iJ May cause damage to central nervous system through prolonged or repeated exposure if inhaled.

EVALUATION OF THE INFORMATION ON THE DANGER OF MIXTURES: See sections 9.1, 11.1 and 12.1.

ADVISES 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 Safety Data Sheets and labeling 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, Bert Mellan (Noyes Data Co., 1970).
- Threshold Limit Values, (ACGIH, 2017).
- European agreement on the international carriage of dangerous goods by road, (ADR 2019).
- International Maritime Dangerous Goods Code IMDG including Amendment 39-18 (IMO, 2018).

ABBREVIATIONS AND ACRONYMS:

List of abbreviations and acronyms that can be used (but not necessarily used) in this Safety Data Sheet:

- REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals of the United Nations.
- CLP: European regulation on Classification, Labelling and 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
- DNEL: Derived No-Effect Level (REACH).
- PNEC: Predicted No-Effect Concentration (REACH).
- LD50: Lethal dose, 50 percent.
- LC50: Lethal concentration, 50 percent.
- UN: United Nations Organisation.
- ADR: European agreement concerning the international carriage of dangerous goods by road
- RID: Regulations concerning the international transport of dangerous goods by rail.
- IMDG: International Maritime code for Dangerous Goods.
- IATA: International Air Transport Association.
- ICAO: International Civil Aviation Organization.

SAFETY DATA SHEET REGULATIONS:

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

HISTORIC:

Version: 1

Date of compilation:

07/05/2020

The information of this Safety Data Sheet, is based on the present state of knowledge and on current UE and national laws, as the users' working conditions are beyond our knowledge and control. The product is not to be used for other purposes than those specified, without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this Safety Data Sheet is meant as a description of the safety requirements of the product and it is not to be considered as a guarantee of the product's properties.