

Revision nr. 1

Dated 25/11/2022

First compilation

## **ALCOLE ET. MISCELATO SUR 99 10 PPM BITREX**

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Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

#### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

S01.4.202 Code:

ALCOLE ET. MISCELATO SUR 99 10 PPM BITREX Product name

Chemical name and synonym Ethyl alcohol - ethanol 1S60-W0XW-A00J-WM8R UFI:

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

Ethyl alcohol mixed with Brex for subsequent formulations Intended use

Exposure scenarios mentioned:

Ex 1 production of the substance. - Industrial pag. 22

Es 2 use as an intermediate substance. - Industrial pag. 27

ES 3 I use as a chemical product for processes or extraction - industrial solvent pag. 32

ES 4 distribution of the substance. - Industrial pag. 37

ES 5 formulation and (re) packaging of substances and mixtures - industrialist pag. 43

ES 6 Industrial use. Use as a solvent. - Industrial pag. 49

ES 7 I use as fuel. - Industrial pag. 55

ES 8 Professional use. Use as a solvent. - Professional pag. 60

ES 9 use as fuel. Professional pag. 65

Ex 10 functional fluids. - Industrial pag. 69

ES 11 Functional fluids. - Professional pag. 73

ES 12 use in workshops. Professional pag. 77

ES 13 I use as fuel, or through immersion, pouring, dive or soaking. - consumption pag. 80

ES 14 I use as fuel, not automotive. - consumption pag. 83

ES 15 used in products containing small quantities of substance (<50 g). - consumption pag. 86

ES 16 Functional fluids. - consumption pag. 93

Ex 17 use in coatings. - consumption pag. 95

ES 18 antifreeze applications and unfortunate, used in products relating to glass washing. - consumption pag 99

ES 19 use in cleaning products. - consumption pag. 102

Ex 20 other consumption uses. - consumption pag. 105

Identified Uses	Industrial	Professional	Consumer
For detailed information on the identified uses of the product, consult the exposure scenario attached to	V	~	V
this safety card.			
Uses Advised Against			

Any use not specified in this card, nor in its attachments

#### 1.3. Details of the supplier of the safety data sheet

Silcompa spa Via Fosdondo, 71/A Full address District and Country 42015 Correggio (RE)

Tel. 0522642880 Fax 0522642734

e-mail address of the competent person

responsible for the Safety Data Sheet mpignagnoli@silcompa.it



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#### 1.4. Emergency telephone number

For urgent inquiries refer to

For urgent information contact

For Silcompa +39 0522-642880 from 8 to 18, while for CAV:

Poison Control Center of Milan +39 02 66101029 (CAV Niguarda Ca` Granda Hospital - Milan)

For Malta:

Malta Competition and Consumer Affairs Authority (MCCAA) Mizzi House, National

Road, Blata I-Bajda #MR9010, Malta Ph.: +356 2395 2000

#### **SECTION 2. Hazards identification**

#### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

NOTE: the indication of danger "serious eye injuries/eye irritation, danger category 2 - H319", according to the Reach registration is applicable for concentrations ≥ 50%.

This classification is more severe than the "minimum" classification referred to in Annex VI of Regulation (EC) 1272/2008 (CLP). Companies that have already presented a recording dossier and in possession of the CSR should adopt the most severe classification that includes eye irritation. On the basis of the available data, a 50% specific concentration limit can be applied to the classification of the mixtures containing ethanol, for the End-Point eye irritation.

Hazard classification and indication:

Flammable liquid, category 2 H225 Highly flammable liquid and vapour. Eye irritation, category 2 H319 Causes serious eye irritation.

#### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:





Signal words: Danger

Hazard statements:

H225 Highly flammable liquid and vapour.H319 Causes serious eye irritation.



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Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**P233** Keep container tightly closed.

**P280** Wear protective gloves/ protective clothing / eye protection / face protection.

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

In the event of a fire: use chemical foal, resistant alcohol foam, carbon dioxide, spraying water to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

#### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0.1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

#### **SECTION 3. Composition/information on ingredients**

#### 3.2. Mixtures

Contains:

Identification x = Conc. % Classification (EC) 1272/2008 (CLP)

**ETHANOL** 

INDEX 603-002-00-5  $99 \le x < 100$  Flam. Liq. 2 H225, Eye Irrit. 2 H319

EC 200-578-6 Eye Irrit. 2 H319: ≥ 50% (according to REACh registration)

CAS 64-17-5

REACH Reg. 01-2119457610-43-

0090

**Denatonium Benzoate** 

INDEX - 0 ≤ x < 0,1 Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335

EC 223-095-2 LD50 Oral: 584 mg/kg

CAS 3734-33-6

REACH Reg. 01-2120102843-65-

XXXX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

#### **SECTION 4. First aid measures**

General information

Consult a doctor. Show this safety card to the attending physician.

#### 4.1. Description of first aid measures

Inhalation: transport the injured person in the open air and keep it at rest in position that favors breathing. Wear the planned PPE. In case of respiratory symptoms, call a doctor.

Contact with the skin: wash the affected part with water, remove the clothing impregnated with alcohol. Request medical intervention if irritation or redness persist.

Contact with the eyes: rinse immediately with a lot of water keeping the eyelids well open. Remove contact lenses



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If irritation persists in the eyes, consult a doctor.

Ingestion: Do not cause vomiting. Rinse your mouth with water. Do not administer anything for OS. In case of malaise, consult a doctor and show him this tab.

#### 4.2. Most important symptoms and effects, both acute and delayed

Inhalation: high concentration of vapors can cause transitory irritation of the respiratory tract, headache and nausea.

Contact with the skin: it can cause slight irritation by prolonged or repeated contact.

Contact with eyes: liquid or vapors can cause eyes irritation.

Ingestion: it can cause depression of the central nervous system, nausea/vomiting and symptoms similar to intoxication from alcoholic beverages.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Special measures are not required, treating according to the symptomatology possibly found

#### **SECTION 5. Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinction means

The extinction means are: carbon dioxide, foam, chemical powder. For the losses and spills of the product that have not set out, the nebulized water can be used to disperse flammable vapors and protect people committed to stopping the loss.

Non -suitable extinction means

Do not use jets of water. Water is not effective to extinguish the fire, however, it can be used to cool the closed containers exposed to the flame by preventing bursts and explosions.

#### 5.2. Special hazards arising from the substance or mixture

Dangers due to exposure in case of fire

Overpression can be created in the containers exposed to fire with danger of explosion. Avoid breathing combustion products.

In case of fire, carbon oxides can get rid of. The product emits flammable vapors that can form explosive mixtures with air. The vapors, in the presence of a source of ignition, can produce a blaze. Escape in the sewers can cause a danger of fire or explosion. The containers can explode in the heat of the fire.

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#### 5.3. Advice for firefighters

#### GENERAL INFORMATIONS

Cool the containers with water jets to avoid the decomposition of the product and the development of substances potentially dangerous for health. Always wear the complete equipment of fire protection. Collect the shutdown waters that must not be downloaded in the sewers. Dispose of the contaminated water used for the extinction and residue of the fire according to the current regulations. EQUIPMENT

Normal clothing for the fight against fire, such as an open circuit compressed air car rescue (EN 137) with full facial mask (EN 136), anti -fiamma (EN469), anti -fiambamma gloves (EN 659) and firefighters' boots (Ho A29 or A30).

#### **SECTION 6. Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.



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Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

Remove unnecessary people and the curious, isolate the dangerous area and prohibit access, consider the needs of evacuation, stay underground and keep away from low areas, where vapors can accumulate that can be set out, isolate/stop the loss if this It can be made without risk.

#### 6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

In the sprey of spill in sewer or waterways, notify the competent authorities if the product has reached water or sewer courses, in order to be able to adopt the measures to minimize the effects on the aquifers, soil and vegetation.

#### 6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.3.1 small payments

If there are safety margins, allow evaporation, stem the spill with suitable absorbents such as earth and/or sand, dilute the liquid with water to avoid the danger of explosion and fires, completely ventilate the contaminated area. Use only non -iscintal tools, do not use electrical equipment unless they are safe equipment and suitable for the purpose (Adpe/ex pumps).

#### 6.3.2 great payments

Form a dam or containment pending precise subsequent provisions, protect the sewers with suitable covers, contact the competent authorities for emergency management

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

#### **SECTION 7. Handling and storage**

#### 7.1. Precautions for safe handling

Keep away from heat, sparks and free flames, do not smoke or use matches or lighters. Without adequate ventilation, vapors can accumulate in the ground and set fire even at a distance, if triggered, with a danger of returning flame. Avoid the accumulation of electrostatic charges. Connect to a soil socket in the case of large packaging during labor operations and wearing anti -player shoes. The strong agitation and vigorous scrolling of the liquid in the pipes and equipment can cause formation and accumulation of electrostatic charges. To avoid the danger of fire and burst, never use compressed air in handling. Open the containers with caution, because they can be under pressure. Do not eat, nor drink, nor smoking during use. Avoid the dispersion of the product in the environment.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep only in the original container. Keep the closed containers, in a well -ventilated place, sheltered from direct sunlight. Keep in a cool and well -ventilated place, far from heat sources, free flames, sparks and other ignition sources. Store the containers away from any incompatible materials, checking section 10.



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## 7.3. Specific end use(s)

Refer to the exposure scenario attached to this security card

## **SECTION 8. Exposure controls/personal protection**

## 8.1. Control parameters

#### Regulatory References:

AUS BEL BGR	Österreich Belgique България	Gesamte Rechtsvorschrift für Grenzwerteverordnung 2021 , Fassung vom 17.06.2021 Liste de valeurs limites d'exposition aux agents chimiques, livre VI du code du bien-être au travail НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ,
		СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CHE	Suisse / Schweiz	Valeur's limites d'exposition aux postes de travail: VME/VLE (SUVA). Grenzwerte am Arbeitsplatz: MAK
CZE	Česká Republika	(SUVA) Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se
DEU	Deutschland	stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher
DNK ESP FRA	Danmark España France	Arbeitsstoffe, Mitteilung 56 Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019 Límites de exposición profesional para agentes químicos en España 2021 Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GRC	France Ελλάδα	ναιευτε timites α exposition professionnelle aux agents chimiques en France. ΕΔ 964 - INNS  Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή
HUN	Magyarország	μεταλλαξιγόνους παράγοντες κατά την εργασία``» Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
LVA	Latvija	Grozījumi Ministru kabineta 2007. gada 15. maija noteikumos Nr. 325 "Darba aizsardzības prasības
NOR	Norge	saskarē ar ķīmiskajām vielām darba vietās" (prot. Nr. 32 18. §; prot. Nr. 1 22. §) Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste
POL	Polska	lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w
ROU	România	środowisku pracy Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea
SVK	Slovensko	și completarea hotărârii guvernului nr. 1.093/2006 NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s
SVN	Slovenija	expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 –
GBR	United Kingdom TLV-ACGIH	ZVZD-1, 38/15, 78/18 in 78/19) EH40/2005 Workplace exposure limits (Fourth Edition 2020) ACGIH 2021

EIHANOL	
Throobold	П

Threshold Limit Va	llue						
Туре	Country	TWA/8h		STEL/15min		Remarks /	
						Observations	
		mg/m3	ppm	mg/m3	ppm		
MAK	AUS	1900	1000	3800	2000		STEL:60(Mow),Häufigkei t/Sch:3x



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VLEP	BEL	1907	1000					
TLV	BGR	1000						
MAK	CHE	960	500	1920	1000			
VME/VLE	CHE	960	500	1920	1000			
TLV	CZE	1000	522	3000	1566			
AGW	DEU	380	200	1520	800			
MAK	DEU	380	200	1520	800			
TLV	DNK	1900	1000					
VLA	ESP			1910	1000			
VLEP	FRA	1900	1000	9500	5000			
TLV	GRC	1900	1000					
AK	HUN	1900		3800				
GVI/KGVI	HRV	1900	1000					
RV	LVA	1000						
TLV	NOR	950	500					
TGG	NLD	260		1900		SKIN		
NDS/NDSCh	POL	1900						
TLV	ROU	1900	1000	9500	5000			
NPEL	SVK	960	500	1920	1000			
MV	SVN	960	500	1920	1000			
WEL	GBR	1920	1000					
TLV-ACGIH				1884	1000			
Predicted no-effect concent	ration - PNEC							
Normal value in fresh water				0,96	mg	j/l		
Normal value in marine wat	er			0,79	mg	j/l		
Normal value for fresh water	r sediment			3,6	mg	ı/kg		
Normal value for marine wa	ter sediment			2,9	mg.	ı/kg		
Normal value of STP micro	organisms			580	mg.	ı/l		
Normal value for the food ch	hain (secondary poisor	ning)		0,72	g/k	.g		
Normal value for the terrest	rial compartment			0,63	mg.	ı/kg		
Health - Derived no-eff	fect level - DNEL / [ Effects on consumers	DMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic
Inhalation				systemic	1900 mg/mc3	systemic VND	VND	systemic 950 mg/m3
Skin							VND	343 mg/kg
Denatonium Benzoate		D14F1						
Health - Derived no-eff	Effects on consumers	DMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic

systemic

systemic

systemic



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Oral	0,51 mg/kg bw/d	
Inhalation	0,893 mg/m3	4,99 mg/m3
Skin	0,51 mg/kg bw/d	1,43 mg/kg bw/d

Legend:

(C) = CEILING : INHAL = Inhalable Fraction : RESP = Respirable Fraction : THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

#### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.



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# SECTION 9. Physical and chemical properties 9.1. Information on basic physical and chemical properties

Properties Appearance Colour	Value liquid colourless	Information Temperature: 20 °C
Odour	characteristic alcohol	
Odour threshold	18,8 mg/m3	Concentration: 100 % Substance:ETHANOL
		Temperature: 20 °C
Melting point / freezing point	-114 °C	Remark:ACGIG, 2014; HSDB 2015; INRS, 2011 Concentration: 100 %
		Substance:ETHANOL
Initial boiling point	78 °C	Remark:(1013 hPa) Concentration: 100 %
		Substance:ETHANOL
Flammability	flammable liquid	Concentration: 100 % Substance:ETHANOL
Lower explosive limit	3,3 % (v/v)	Remark:INAIL, 2018 Substance:ETHANOL
Upper explosive limit	19 % (v/v)	Remark:INAIL, 2018 Substance:ETHANOL
Flash point	13 °C	Concentration: 100 % Substance:ETHANOL
Auto-ignition temperature	363 °C	Concentration: 100 % Substance:ETHANOL
Decomposition temperature pH	not available 5-8	Reason for missing data:not determined Remark:10 % in water Concentration: 10 %
		Temperature: 20 °C
Kinematic viscosity	1,5 mm^2/s	Remark:For 100% pure ethanol Temperature: 20 °C
Dynamic viscosity Solubility	not available soluble in water and in common organic solvents	Reason for missing data:not determined Temperature: 20 °C
Partition coefficient: n-octanol/water Vapour pressure	-0,35 5,8 kPa	Temperature: 20 °C Concentration: 100 % Temperature: 20 °C
Density and/or relative density	0,789 kg/dm3	Method:densimetric Remark:For pure alcohol
		Temperature: 20 °C
Relative vapour density	1,6	Remark:Air = 1 (ICSC) Concentration: 100 %
		Temperature: 20 °C

Particle characteristics Median equivalent diameter

Method: Not applicable



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#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Total solids (250°C / 482°F) 0,00 %

VOC (Directive 2010/75/EU) 100,00 % - 788,99

a/litre

VOC (volatile carbon) 52,14 % - 411,38 g/litre

## **SECTION 10. Stability and reactivity**

#### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

#### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

## 10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL

Risk of explosion in contact with: alkaline metals, alkaline oxides, calcium hypochlorite, sulfur monofluoride, acetic anhydrides, acids, concentrated hydrogen peroxide, permeate, percidic acid, perloronitrile, mercury nitrate, nitric acid, silver, silver nitrate, ammonia, silver oxide, ammonia, strong oxidizing agents, nitrogen dioxide. It can react dangerously with: bromo acetilene, chlorine acetylene, trifluoruro di bromo, chrome three oxide, chromil chloride, fluorine, ter-butpoxid potassium, lithium hydruro, phosphorus three oxide, black platinum, zirconium chloride (IV), zirconium iodide (IV). Form explosive mixtures with: air.

#### 10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL

Avoid exposure to: sources of heat, naked flames.

## 10.5. Incompatible materials

ETHANOL

Strong mineral acids and oxidizing agents.



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#### 10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

#### **SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

#### Information on likely routes of exposure

Professional exhibition can take place by inhalation and skin contact with ethanol in the workplace where it is produced or used (HSDB, 2015). For the general population, the main potential exposure routes are ingestion (consumption of alcoholic beverages containing ethanol), inhalation and skin contact (HSDB, 2015).

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Ingestion: Ingestion can have the following effects: depression of the central nervous system, nausea/vomiting, symptoms similar to intoxication from alcoholic beverages.

Inhalation: inhalation of a high concentration of vapors can cause transitory irritation of the respiratory tract,

Headache, headache, nausea.

Acute toxicity is mild both by ingestion and by inhalation. It is minimal in via Cuanea (inrs, 2011).

In humans, in the event of acute intoxication due to ingestion, the manifestations are essentially neuropsychic (intellectual and mental excitement with cerebellar motor incoordination, then more or less profound and possible paralysis of the respiratory centers). These disorders are closely related to the alcohol level (inrs, 2011).

Industrial alcohol that has denaturation additives, for concentrations equal to 70% of ethanol, causes serious gastric lesions (inrs, 2011).

In the event of inhalation of ethanol vapors, the risk of severe intoxication is mild (inrs, 2011).

The chronic effects of extremism for ingestion are: neuropsychic (polynevritis, cerebellar atrophy, memory disorders), digestive (steatosis and liver cirrhosis, chronic gastritis, pancreatitis) cardiovascular (myocardiopathy, arterial hypertension) and hematological (inrs, 2011).

In case of repeated inhalations of ethanol vapors, there are irritation of the eyes, of the upper airways, headaches, fatigue, decrease in concentration and vigilance capacity (inrs, 2011).

Studies show that excessive consumption of alcohol is a factor that causes arteriosclerosis, while a modest consumption has a protective power (inrs, 2011).

At the skin level, repeated contact can cause erythema and edema in particular if you have an occlusion that determines the evaporation of the ananol (inrs, 2011).

#### Interactive effects



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In the industrial field there can be hepatotoxic synergistic effects for contemporary exposure to chlorinated solvents and for interactions with admires, obsessions, violates and carbonates, aldehyde dehydrogenase inhibitors.

#### ACUTE TOXICITY

ATE (Inhalation) of the mixture:

ATE (Oral) of the mixture:

Not classified (no significant component)

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

Denatonium Benzoate

The symptomatology is related to the dose. You can have a SNC depression, which varies from excitement to anesthesia, narcosis, coma and respiratory arrest.

LD50 (Dermal): > 2000 mg/kg Ratto LD50 (Oral): 584 mg/kg Ratto

LC50 (Inhalation mists/powders): 200 mg/l/4h Ratto - 4h- mg/m3

#### ETHANOL

Rat DL50 (oral): 7000 mg/kg (HSDB, 2015); Mouse DL50 (oral): 3400 mg/kg (HSDB, 2015); Rabbit DL50 (skin):> 20000 mg/kg (INRS, 2011);

Rat CL50-10 hours (inhalation): 20000 ppm (HSDB, 2015);

Mouse Cl50-4 hours = 39 mg/m3 (HSDB, 2015).

#### SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

All acute exposure studies (4 hours) available do not highlight irritating effects in animals (Oecd404 or equivalent) and in humans. In humans, repeated dose studies do not highlight irritating effects with the repeated application for a whole day in occlusive conditions, for a maximum of 12 days. Following further exhibitions irritating effects can occur

The available data indicate that the classification criteria are not satisfied.

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

Studies (Oecd405) generally highlight a moderate eye irritation.

All effects disappear within 8 - 14 days.

The level of response is not sufficient to determine the classification pursuant to Directive 67/548/EEC, but it is sufficient, in terms of conjunctive response, to request classification as an irritating of category 2, according to Regulation (EC) 1272/2008 (CLP).

#### RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class



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Cavia maximization test: negative OECD406 Local lymph node essay: negative OECD429

The available data indicate that the classification criteria are not satisfied.

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

Bacterial Egative Test: Negative OECD471

Cytogenetic test (in vitro): negative (with metabolic activation) Oecd473

Genical mutation test of mammary cells (in vitro): negative (with and without metabolic activation) OECD476

Micronucleo test (in vivo): not convincing evidence OECD474 Chromosomal aberration test (in vivo): negative oecd475

Test of the lethal dominant: unlikely production of an effect up to the maximum dose tolerated OECD478

There are some evidence from in vitro studies that ethanol can cause genotoxic or clastogens effects. However, the effects observed are weak and occur only at very high doses.

The available data indicate that the classification criteria are not satisfied.

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Oral (rat) Noael> 3000 mg/kg

Dermale (Topo - F): Noael> 4400 mg/kg Inhalation (mouse - m): Noael> 4250 mg/kg

There is no evidence that the exposure of human beings to the Emanol (different from the repeated consumption of alcoholic beverages) can lead to an increase in the incidence of cancer.

The available data indicate that the classification criteria are not satisfied.

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Oral fertility (mouse) Noael = 13.8 g/kg oecd416 Inhalation (rat) Noaec> 16,000 PPM OECD416

Toxicity for oral development (rat) Noael = 5.2 g/kgbw/day oecd414

Inhalation (rat) Noaec = 39 mg/l Oecd414

The concentration in the blood of ethanol resulting from the exposure through a different path from the intentional and repeated consumption of alcoholic beverages should not reach levels associated with effects on reproduction or development.

The available data indicate that the classification criteria are not satisfied.

#### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class



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No specific effect on target organs observed following a single exposure The available data indicate that the classification criteria are not satisfied.

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Oral (rat) Noael = 1.73 - 3.9 g/kg

#### Target organs

The most sensitive organ in these doses seems to be the kidney in males. The effects are visible only to doses well above the levels that would require a classification.

#### Route of exposure

The exposure repeated by ingestion determines toxicity to be borne by the nervous system (polynevritis, cerebellar atrophy, memory disorders), the digestive system (steatosis and liver cirrhosis, chronic gastritis, pancreatitis) of the cardiovascular system (myocardiopathy, arterial hypertension) (Inrs, 2011).

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

No expected danger.

Toxicocinetics:

In humans, ethanol is promptly absorbed oral and inhaled, it is distributed in all tissues and organs and is easily metabolized and excreted. At the relevant concentrations for the employment exposure by inhalation, alcohol dehydrogenase is the dominant metabolic pathway in the liver and is not saturated. Hitanol does not accumulate in the body. The absorption by dermal is very low. Probable exposure routes:

Inhalation is the most probable way of exposure during normal use. The absorption by dermal way is probable only in case of prolonged exposure in conditions of occlusion. Hitanol is easily absorbed by ingestion.

#### 11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.



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#### **SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

#### 12.1. Toxicity

#### ETHANOL

Short -term effects

Pisces (Pimephales promlas) Cl50-96 hours> 100 mg/l (Oecd, 2004); Crustaceans (Artemia Salina) CL50-24 hours: 1833 mg/l (Oecd, 2004); Crustaceans (paramecium caudatum) cl50-4 hours: 5980 mg/l (Oecd, 2004);

Algae (Chlorella Vulgaris) Ce50-96 hours: 1000 mg/l (growth inhibition) (Oecd, 2004).

Long -term effects

Crustaceans (Ceriodaphnia sp.) Noec-10 days: 9.6 mg/l (effects on reproduction) (Oecd, 2004)

Algae (Lemna Gibba) Noec-7 days: 280 mg/l (Oecd, 2004).

Denatonium Benzoate

LC50 - for Fish > 1000 mg/l/96h

EC50 - for Crustacea 13 mg/l/48h Daphnia magna

#### 12.2. Persistence and degradability

**ETHANOL** 

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

The steam voltage (7906 PA at 25 ° C) indicates that when released into the atmosphere, ethanol exists only as steam in the atmosphere where it degrades by reaction with radical oxidrilic produced photochemically; For this reaction in the air a 36 -hour half -life is estimated (HSDB, 2015).

Ethanol does not contain chromophores that absorb wavelengths to> 290 Nm, and therefore it is not expected that it can be susceptible to photolisi direct bv solar radiation (HSDB, 2015).

Idrolisi is not expected to be an important environmental destiny process since ethanol is free of functional groups that hydrolyse in environmental conditions (Ph 5 PH) (HSDB, 2015).

The ethanol was biodegraded with the emivity of the order of a few days using microcosms built with low organic sandy soil and water water water, this indicates that biodegradation is an important environmental destiny process in the ground and water (HSDB, 2015)

Biodegradability test in water approx. 74 % after 5 days

approx. 84 % after 20 days C.O.D. (real) 1,640,000 mg/l O2

C.O.D. (theoretical) 1,586,000 mg/l O2

#### 12.3. Bioaccumulative potential

**ETHANOL** 

-0.35 Partition coefficient: n-octanol/water

Based on the N-Ottanol/Acqua distribution coefficient, ethanol has a low bioaccrumulus potential.

BCF 3 (estimated value) (HSDB, 2015).

#### 12.4. Mobility in soil

It is not persistent in the environment. The fleeting model (Level III) shows that, released in the environment, it is mainly distributed in air and water. The Relative distributions between the sectors are 57% in the air, 34% in water and 9% in the ground. This prediction is supported by the limited data

prevailing concentrations, which show that Ethanol was detected in external air and in river water (Oecd, 2004).

The KOC of 2.75 (determined by the 0.44 Log Kow) indicates that if released to the ground, ethanol has very high mobility and, if released in the water, does not adsorbe



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to suspended solids and sediments (HSDB, 2015).

The constant of Henry's law of 5 x 10-6 Atm-M3/Mole indicates that volatilization is from wet soil surfaces and from water surfaces is a important destiny process (for a model river and a model lake, emivved volatization, respectively, were estimated at 5 and 39 days) (HSDB, 2015).

The steam voltage indicates that the eThanol can volatilize from dry soil surfaces (HSDB, 2015).

#### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

#### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

#### 12.7. Other adverse effects

As a volatile organic compound in the atmosphere, Ethanol contributes potentially to the formation of the tropospheric ozone in some conditions, however its potential for creating the photochemical ozone is considered from moderate to bass (Oecd, 2004).

### **SECTION 13. Disposal considerations**

Empty containers can contain dangerous residues. Do not cut, do not pierce or weld the containers on or close. The labels must not be removed until the containers are clean.

Contaminated containers should not be treated as domestic waste. The containers should be cleaned with appropriate and reused methods or disposed of in landfills or incinerators. Do not incinerate closed containers.

#### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

### **SECTION 14. Transport information**

#### 14.1. UN number or ID number

ADR / RID, IMDG, IATA: 1170

#### 14.2. UN proper shipping name

ADR / RID: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IMDG: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IATA: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

#### 14.3. Transport hazard class(es)



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Packaging

Packaging

instructions: 353

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



#### 14.4. Packing group

ADR / RID, IMDG, IATA: Ш

#### 14.5. Environmental hazards

ADR / RID: NO IMDG: NO IATA: NO

#### 14.6. Special precautions for user

ADR / RID: HIN - Kemler: 33 Limited Tunnel restriction Quantities: 1 code: (D/E)

Special provision: -

IMDG: EMS: F-E, S-D Limited Quantities: 1

IATA: Cargo: Maximum

quantity: 60 L instructions: 364

Pass.: Maximum quantity: 5 L

A3, A58,

Special provision: A180

### 14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

## **SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: P5c

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006



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Product

Point 3 - 40

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

#### Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

The substance is inserted as an active substance in the official list of biocidal suppliers, published by Echa as required by art. 95 of the Reg 528/2012 [the types of product (PT) provided are: PT1 (Human Hygiene), PT2 (disinfectants and alghicides not intended for direct application on humans or animals) and PT4 (human and animal food sector)]]

(http://echa.europa.eu/it/information-on-chemicals/active-substance-supplies).

The substance is part of the class of volatile organic compounds (COV) as defined by Directive 2004/42/EC implemented with Legislative Decree 27 March 2006, n.161 and SMI.

Ethanol is included in EU 10/2011 Reg. Concerning plastic materials and objects intended to come into contact with food products.

Ethanol is included in Reg. 872/2012 which adopts the list of flavoring substances referred to in Regulation (EC) no. 2232/96 of the European Parliament and the Council.

Professional restrictions:

Legislative Decree No. 81/2008 - on safety in the workplace and S.M.I.

State of notification:

Einecs: present on the inventory, or in accordance with the inventory.

TCCA: on the Tsca inventory.

Austr: present on the inventory, or in accordance with the inventory.

DSL: All components of this product are present on the DSL list.

ENCS: present on the inventory, or in accordance with the inventory.

Korea: present on the inventory, or in accordance with the inventory.



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Phil: present on the inventory, or in accordance with the inventory. China: present on the inventory, or in accordance with the inventory. ISHL: present on the inventory, or in accordance with the inventory. Nzoc: present on the inventory, or in accordance with the inventory.

#### 15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

ETHANOL

Denatonium Benzoate

#### **SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2 Flammable liquid, category 2
Acute Tox. 4 Acute toxicity, category 4
Eye Irrit. 2 Eye irritation, category 2
Skin Irrit. 2 Skin irritation, category 2

STOT SE 3 Specific target organ toxicity - single exposure, category 3

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

#### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- · INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
   LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- OEL: Occupational Exposure Level - PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train



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- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)

- 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)

- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2019/521 (XII Atp. CLP)
  16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP) 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
   The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

#### CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

This security card is not to be considered as a specifications.

Attached to this safety card:

- Ethanol exposure scenario, drawn up by Silcompa, revision 03 of 07.03.2022, which replaces the previous version of 10.11.2017, modifying all (20) exposure scenarios.
- Denatonium Benzoate exposure scenario extracted from the Sentinal Supplier version with Date 12/2021