Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code: **411 00 14935-2799 5L**
411 00 14945-2801 20L

Product name **UNIVERSAL LIQUID DETERGENT**

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

Intended use **Universal hard surface cleaner**

1.3. Details of the supplier of the safety data sheet

Name **Meccanocar Italia S.r.l.**
Full address **Via San Francesco, 22**
District and Country **56033 Capannoli (PI)**
Italy
Tel. +39 0587 609433
Fax +39 0587 607145

e-mail address of the competent person responsible for the Safety Data Sheet **moreno.meini@meccanocar.it**

1.4. Emergency telephone number

For urgent inquiries refer to **National Poisons Information Service: +44 121 507 4123**

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 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Substance or mixture corrosive to metals, category 1	H290	May be corrosive to metals.
Skin corrosion, category 1A	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

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:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P260	Do not breathe fume/vapours.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P310	Immediately call a POISON CENTER / doctor.
P264	Wash hands thoroughly after handling.

Contains: SODIUM HYDROXIDE
ALCOHOLS, BRANCHED C11-13, ETHOXYLATED

Contains (Reg. CE 648/2004): <5% EDTA and Salts.

2.3. Other hazards

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
2-(2-BUTOXYETHOXY)ETHANOL		
CAS 112-34-5	8,5 ≤ x < 10	Eye Irrit. 2 H319
EC 203-961-6		
INDEX 603-096-00-8		
Reg. no. 01-2119475104-44-XXXX		
SODIUM HYDROXIDE		
CAS 1310-73-2	4 ≤ x < 4,5	Skin Corr. 1A H314, Eye Dam. 1 H318
EC 215-185-5		
INDEX 011-002-00-6		

Reg. no. 01-2119457892-27-XXXX		
GLICOL ETILENICO		
CAS 107-21-1	4 ≤ x < 4,5	Acute Tox. 4 H302, STOT RE 2 H373
EC 203-473-3		
INDEX 603-027-00-1		
Reg. no. 01-2119456816-28-XXXX		
ALCOHOLS, BRANCHED C11-13, ETHOXYLATED		
CAS 68439-54-3	4 ≤ x < 4,5	Acute Tox. 4 H302, Eye Dam. 1 H318
EC 931-985-3		
INDEX -		
BENZALKONIUM CHLORIDE		
CAS 63449-41-2	0,85 ≤ x < 0,95	Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1
EC 264-151-6		
INDEX 612-140-00-5		

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

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
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.

6.2. Environmental precautions

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

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.

6.4. 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

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition,published 2018)
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
NOR	Norge	Fastsatt av Arbeids- og sosialdepartementet 21. august 2018 med hjemmel i lov 17. juni 2005 nr. 62 om arbeidsmiljø, arbeidstid, stillingsvern mv. (arbeidsmiljøloven) § 1-3, § 1-4 og § 4-5
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

2-(2-BUTOXYETHOXY)ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	67,5	10	101,2	15	
WEL	GBR	67,5	10	101,2	15	
VLEP	ITA	67,5	10	101,2	15	
TLV	NOR	68	10			
VLE	PRT	67,5	10	101,2	15	
OEL	EU	67,5	10	101,2	15	
TLV-ACGIH		66	10			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	1,1	mg/l
Normal value in marine water	0,11	mg/l
Normal value for fresh water sediment	4,4	mg/kg
Normal value for marine water sediment	0,44	mg/kg
Normal value of STP microorganisms	200	mg/l
Normal value for the food chain (secondary poisoning)	56	mg/kg
Normal value for the terrestrial compartment	0,32	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				5 mg/kg bw/d				
Inhalation			40,5 mg/m3	40,5 mg/m3			67,5 mg/m3	67,5 mg/m3
Skin				50 mg/kg bw/d				83 mg/kg bw/d

GLICOL ETILENICO

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	52	20	104	40	SKIN
VLEP	FRA	52	20	104	40	SKIN
WEL	GBR	52	20	104	40	SKIN
VLEP	ITA	52	20	104	40	SKIN

TLV	NOR	52	20			SKIN
VLE	PRT	52	20	104	40	SKIN
OEL	EU	52	20	104	40	SKIN
TLV-ACGIH				10		INHAL
TLV-ACGIH			25		50	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	10	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	37	mg/kg
Normal value for marine water sediment	3,7	mg/kg
Normal value of STP microorganisms	199,5	mg/l
Normal value for the terrestrial compartment	1,53	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			7 mg/m3				35 mg/m3	
Skin				53 mg/kg bw/d				106 mg/kg bw/d

SODIUM HYDROXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP			2		
VLEP	FRA	2				
WEL	GBR			2		
TLV	NOR	2				
TLV-ACGIH				2 (C)		

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				1 mg/m3				1 mg/m3

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.

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 III 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.

EYE PROTECTION
Wear a hood visor or protective visor combined with airtight 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.

2-(2-BUTOXYETHOXY)ETHANOL

Gloves in butyl rubber, Neoprene ™ rubber or nitrile rubber.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	Violet
Odour	characteristic
Odour threshold	Not available
pH	13-14
Melting point / freezing point	0 °C
Initial boiling point	Not available
Boiling range	Not available
Flash point	> 100 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available

Vapour pressure	Not available
Vapour density	Not available
Relative density	1
Solubility	soluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	> 100 °C
Decomposition temperature	>100
Viscosity	>2 cSt
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) : 7,00 % - 70,00 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.

GLICOL ETILENICO

In the air absorbs moisture.Decomposes at temperatures above 200°C/392°F.

BENZALKONIUM CHLORIDE

Corrodes: carbon steel,copper,aluminium,copper alloys,aluminium alloys.

10.2. Chemical stability

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

2-(2-BUTOXYETHOXY)ETHANOL

May form peroxides upon prolonged exposure to air and light.

SODIUM HYDROXIDE

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

2-(2-BUTOXYETHOXY)ETHANOL

May react with: oxidising substances.May form peroxides with: oxygen.Develops hydrogen on contact with: aluminium.May form explosive mixtures with: air.

GLICOL ETILENICO

Risk of explosion on contact with: perchloric acid.May react dangerously with: chlorosulphuric acid,sodium hydroxide,sulphuric acid,phosphorus pentasulphide,chromium (III) oxide,chromyl chloride,potassium perchlorate,potassium dichromate,sodium peroxide,aluminium.Forms explosive mixtures with: air.

SODIUM HYDROXIDE

- Emits hydrogen by reaction with metals.
- Exothermic reaction with strong acids.
- Risk of violent reaction.
- Risk of explosion.
- Reacts violently with water.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

2-(2-BUTOXYETHOXY)ETHANOL

Avoid exposure to: air.

High temperatures and sources of ignition. Prolonged exposure to air / oxygen and light.

GLICOL ETILENICO

Avoid exposure to: sources of heat,naked flames.

SODIUM HYDROXIDE

Avoid exposure to: air,moisture,sources of heat.

- Far from direct sunlight.
- To avoid thermal decomposition, do not overheat.
- Exposure to humidity.
- Freezing

10.5. Incompatible materials

2-(2-BUTOXYETHOXY)ETHANOL

Incompatible with: oxidising substances,strong acids,alkaline metals.

Oxidizing agents.

SODIUM HYDROXIDE

Incompatible with: strong acids,ammonia,zinc,lead,aluminium,water,flammable liquids.

Metals, oxidizing agents, water, acids, aluminum, other light metals and their alloys.

10.6. Hazardous decomposition products

2-(2-BUTOXYETHOXY)ETHANOL

May develop: hydrogen.

Carbon oxides on combustion.

GLICOL ETILENICO

May develop: hydroxyacetaldehyde,glyoxal,acetaldehyde,methane,carbon monoxide,hydrogen.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

2-(2-BUTOXYETHOXY)ETHANOL

WORKERS: inhalation; contact with the skin.

GLICOL ETILENICO

WORKERS: inhalation; contact with the skin.
POPULATION: room air inhalation; skin contact with products containing the substance.

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

2-(2-BUTOXYETHOXY)ETHANOL

May be absorbed by inhalation, ingestion and skin contact; is irritating for the skin and especially for the eyes. May cause damage to the spleen. At room temperature the danger of inhalation is unlikely, due to the low vapour pressure of the substance.

GLICOL ETILENICO

By ingestion it initially stimulates the central nervous system; subsequently a phase of depression takes over. Kidney damage can occur, with anuria and uremia. The symptoms of overexposure are: vomiting, drowsiness, difficult breathing, convulsions. The lethal dose for humans is approximately 1.4 ml / kg.

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:
Not classified (no significant component)
LD50 (Oral) of the mixture:
>2000 mg/kg
LD50 (Dermal) of the mixture:
Not classified (no significant component)

SODIUM HYDROXIDE

LD50 (Oral) 1350 mg/kg Rat

LD50 (Dermal) 1350 mg/kg Rat

2-(2-BUTOXYETHOXY)ETHANOL

LD50 (Oral) 3384 mg/kg Rat

LD50 (Dermal) 2700 mg/kg Rabbit

GLICOL ETILENICO

Method: Not indicated
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: LD50 = 7712 mg / kg bw
Method: Not indicated
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (aerosol)
Results: LC50> 2.5 mg / L air
Bibliographic reference: Evaluation of the Developmental Toxicity of Ethylene Glycol Aerosol in the CD Rat and CD-1 Mouse by Whole-Body Exposure, Tyl RW, Ballantyne B, Fisher LC, Fait DL, Savine TA, Dodd DE, Klonne DR, Pritts IM (1995)
Method: Not indicated
Reliability: 2
Species: Mouse (CD-1; male / female)
Route of exposure: Dermal
Results: LD50> 3500 mg / kg bw
Bibliographic reference: Assessment of the Developmental Toxicity of Ethylene Glycol Applied Cutaneously to CD-1 Mice, Tyl RW, Fisher LC, Kubena MF, Vrbanic MA, Losco PE (1995)

SKIN CORROSION / IRRITATION

Corrosive for the skin

2-(2-BUTOXYETHOXY)ETHANOL

Method: OECD 404
Reliability: 2
Species: Rabbit (Small white Russian, Chbb-SPF)
Route of exposure: Dermal
Results: Slightly irritating

GLICOL ETILENICO

Method: Not indicated
Reliability: 2
Species: Rabbit (Vienna White)
Route of exposure: Dermal
Results: Not classified

SODIUM HYDROXIDE

Method: Not indicated
Reliability: 1
Human species
Route of exposure: Dermal
Results: Irritating
Bibliographic reference: York M, Griffiths E, Whittle E and Basketter DA, Evaluation of a human patch test for the identification and classification of skin irritation potential (1996)

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

GLICOL ETILENICO

Method: Not indicated
Reliability: 2
Species: Rabbit (Vienna White)
Route of exposure: Ocular
Results: Not classified

SODIUM HYDROXIDE

Method: OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Irritating
Bibliographic reference: Jacobs GA, OECD Eye Irritation Tests on Sodium Hydroxide (1992)

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

SODIUM HYDROXIDE

Method: According to the OECD SIDS document for sodium hydroxide
Reliability: 2
Species: Human (male)
Route of exposure: Dermal
Results: Not sensitizing
Bibliographic reference: Park et al., Journal of Dermatological Science, 10, 159-165 (1995).

Skin sensitization
2-(2-BUTOXYETHOXY)ETHANOL

Method: Equivalent or similar to OECD 406
Reliability: 2
Species: guinea pig
Route of exposure: Dermal
Results: Not sensitizing

GLICOL ETILENICO

Method: Not indicated
Reliability: 2
Species: guinea pig (Dunkin-Hartley; male / female)
Route of exposure: Dermal
Results: Not classified
Bibliographic reference: Evaluation of Skin Irritation and Sensitization of Two Diol Solutions used as Experimental Dentin Primers in Humans and Guinea Pigs, Kurihara A, Manabe A, Katsuno K, Itoh K, Hismitsu H, Wakumoto S, Yoshida T (1996)

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

2-(2-BUTOXYETHOXY)ETHANOL

Method: Equivalent or similar to OECD 471 in vitro test
Reliability: 2
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD 475 in vivo test
Reliability: 2
Species: Mouse (CD-1; male / female)
Route of exposure: Oral
Results: Negative

GLICOL ETILENICO

Method: OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Not indicated - in vivo test
Reliability: 2
Species: Rat (Fischer 344; male / female)
Route of exposure: Oral
Results: Negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

GLICOL ETILENICO

The available studies have not shown carcinogenic power. In a 2-year carcinogenicity study, conducted by the US National Toxicology Program (NTP), in which ethylene glycol was administered in feeding, "no evidence of carcinogenic activity" was observed in male and female B6C3F1 mice (NTP, 1993).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on development of the offspring
2-(2-BUTOXYETHOXY)ETHANOL

Method: Equivalent or similar to OECD 414
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Dermal

Results: NOAEL 1 000 mg / kg bw / day

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

2-(2-BUTOXYETHOXY)ETHANOL

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

ALCOHOLS, BRANCHED C11-13, ETHOXYLATED

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

GLICOL ETILENICO

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

SODIUM HYDROXIDE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

2-(2-BUTOXYETHOXY)ETHANOL

Method: OECD 408
Reliability: 2
Species: Rat (Fischer 344; male / female)
Route of exposure: Oral
Results: NOAEL 250 mg / kg bw / day
Method: OECD 413
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Inhalation
Results: NOAEL 14 ppm
Method: Equivalent or similar to OECD 411
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Dermal
Results: NOAEL
<200 mg / kg bw / day

ALCOHOLS, BRANCHED C11-13, ETHOXYLATED

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

GLICOL ETILENICO

Method: OECD 410
Reliability: 1
Species: Dog (Beagle; male / female)
Route of exposure: Dermal
Results: NOAEL> 2 200 - <4 400 mg / kg bw / day

SODIUM HYDROXIDE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

Target organ
GLICOL ETILENICO

Kidney

Route of exposure
GLICOL ETILENICO

Oral

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

GLICOL ETILENICO	
LC50 - for Fish	72860 mg/l/96h
EC10 for Algae / Aquatic Plants	100 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	100 mg/l

12.2. Persistence and degradability

2-(2-BUTOXYETHOXY)ETHANOL
Quickly biodegradable, 92% in 28 days.
GLICOL ETILENICO

SODIUM HYDROXIDE	
Solubility in water	> 10000 mg/l
Degradability: information not available	

BENZALKONIUM CHLORIDE
NOT rapidly degradable

2-(2-BUTOXYETHOXY)ETHANOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

GLICOL ETILENICO

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

2-(2-BUTOXYETHOXY)ETHANOL

Partition coefficient: n-octanol/water	1

GLICOL ETILENICO

Partition coefficient: n-octanol/water	-1,36

12.4. Mobility in soil

Information not available

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 greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

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.

2-(2-BUTOXYETHOXY)ETHANOL
Product disposal: dispose of as hazardous waste. Recover or recycle if possible. Otherwise incineration. Dispose according to local regulations.
Disposal of the container: empty the container completely. After emptying, vent to a safe place. Send to drum recovery or metal recovery.

SODIUM HYDROXIDE
- Dilute with plenty of water.
- Solutions with a high pH value must be neutralized before discharging.
- Neutralize with acid.
- In accordance with local and national regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA:	1719

14.2. UN proper shipping name

ADR / RID:	CAUSTIC ALKALI LIQUID, N.O.S.
IMDG:	CAUSTIC ALKALI LIQUID, N.O.S.
IATA:	CAUSTIC ALKALI LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR / RID:	Class: 8	Label: 8
IMDG:	Class: 8	Label: 8
IATA:	Class: 8	Label: 8

14.4. Packing group

ADR / RID, IMDG, IATA:	III

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80	Limited Quantities: 5 L	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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/EC: None

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

Product

Point	3

Contained substance

Point	55	2-(2-BUTOXYETHOXY)ETHANOL Reg. no.: 01-2119475104-44-XXXX

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 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.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

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

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B

Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- 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: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average 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
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 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
7. 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 (EU) 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) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII 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.
Product`s classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.
The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 04 / 05 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.