Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

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

1.1. Product identifier

Code:	**0430201P**
Product name	**SYNTECH FLEXIPUR COMP.A**
UFI :	**1AQ0-H0YC-000U-NNMN**

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

Intended use	**Two-component polyurethane elastomeric coating with glossy finish**

1.3. Details of the supplier of the safety data sheet

Name	**AZICHEM SRL**
Full address	**Via G. Gentile 16/A**
District and Country	**46044 Goito (Mantova)** **Italia** **Tel. 0376604185**
e-mail address of the competent person responsible for the Safety Data Sheet	**laboratorio@azichem.com**

1.4. Emergency telephone number

For urgent inquiries refer to

Osp. Pediatrico Bambino Gesù ROMA: 06 68593726
Az. Osp. Univ. Foggia FOGGIA: 800183459
Az. Osp. "A. Cardarelli" NAPOLI: 081-5453333
Policlinico "Umberto I" ROMA: 06-49978000
Policlinico "A. Gemelli" ROMA: 06-3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica FIRENZE: 055-7947819
Centro Nazionale di Informazione Tossicologica PAVIA: 0382-24444
Osp. Niguarda Ca' Granda MILANO: 02-66101029
Azienda Ospedaliera Papa Giovanni XXII BERGAMO: 800883300
Azienda Ospedaliera Integrata VERONA: 800011858

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.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
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:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P331	Do NOT induce vomiting.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER / doctor / . . .
P370+P378	In case of fire: use . . . to extinguish.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.

Contains:
XYLENE
1-METHOXY-2-PROPANOL
N-BUTYL ACETATE
HYDROCARBONS, C9, AROMATIC

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)
1-METHOXY-2-PROPANOL			
INDEX	*603-064-00-3*	12 ≤ x < 13,5	**Flam. Liq. 3 H226, STOT SE 3 H336**
EC	*203-539-1*		
CAS	*107-98-2*		
N-BUTYL ACETATE			
INDEX	*607-025-00-1*	8,5 ≤ x < 10	**Flam. Liq. 3 H226, STOT SE 3 H336, EUH066**
EC	*204-658-1*		
CAS	*123-86-4*		
XYLENE			
INDEX	*601-022-00-9*	6 ≤ x < 7	**Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: C**
EC	*215-535-7*		**ATE Dermal: 1100 mg/kg, ATE Inhalation vapours: 11 mg/l**
CAS	*1330-20-7*		
HYDROCARBONS, C9, AROMATIC			
INDEX		6 ≤ x < 7	**Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066**
EC	*918-668-5*		
CAS	*128601-23-0*		
REACH Reg.	*01-2119455851-35-xxxx*		
2-METHOXY-1-METHYLETHYL ACETATE			
INDEX	*607-195-00-7*	2 ≤ x < 2,5	**Flam. Liq. 3 H226**
EC	*203-603-9*		
CAS	*108-65-6*		

SECTION 3. Composition/information on ingredients ... / >>

BUTANE-1,4-DIOL

INDEX		2 ≤ x < 2,5	**Acute Tox. 4 H302, STOT SE 3 H336**
EC	*203-786-5*		**LD50 Oral: 1500 mg/kg**
CAS	*110-63-4*		
REACH Reg.	*01-2119471849-20-XXXX*		

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

In case of doubt or in the presence of symptoms contact a doctor and show him this document.
In case of more severe symptoms, ask for immediate medical aid.
EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Take off contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice. Avoid further contact with contaminated clothing.
INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.
INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

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

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

IF SWALLOWED: Immediately call a POISON CENTER / doctor / . . .

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. 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.

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.

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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. 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 cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

2-METHOXY-1-METHYLETHYL ACETATE
Store in an inert atmosphere, sheletered from moisture because it hydrolises easily.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.28 от 2 Април 2024г.)
DEU	Deutschland	WirkungDosisNOAELMAK-und BAT-Werte-Liste 2024 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe
ESP	España	Límites de exposición profesional para agentes químicos en España 2024
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
GRC	Ελλάδα	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 μεταλλαξιγόνους παράγοντες κατά την εργασία''»

SECTION 8. Exposure controls/personal protection ... / >>

HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
PRT	Portugal	Decreto-Lei n.º 102/2024, de 4 de dezembro. Sumário: Transpõe para a ordem jurídica interna a Diretiva (UE) 2022/431, relativa à proteção dos trabalhadores contra riscos ligados à exposição a agentes cancerígenos ou mutagénicos e procede à quarta alteração
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 24 czerwca 2024 r. zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	HOTĂRÂRE nr. 179 din 28 februarie 2024 pentru modificarea şi completarea Hotărârii Guvernului nr. 1.093/2006 privind stabilirea cerinţelor minime de securitate şi sănătate pentru protecţia lucrătorilor împotriva riscurilor legate de expunerea la agenţi ca
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; 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 98/24/EC; Directive 91/322/EEC.
	ACGIH	ACGIH 2025

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	710		950		
AGW	DEU	300	62	600 (C)	124 (C)	
VLA	ESP	241	50	724	150	
VLEP	FRA	710	150	940	200	
TLV	GRC	710	150	950	200	
AK	HUN	241		723		
VLEP	ITA	241	50	723	150	
VLE	PRT	241	50	723	150	
NDS/NDSCh	POL	240		720		
TLV	ROU	241	50	723	150	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
ACGIH			50		150	

XYLENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	221	50	442	100	SKIN
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
TLV	GRC	435	100	650	150	
AK	HUN	221		442		SKIN
VLEP	ITA	221	50	442	100	SKIN
VLE	PRT	221	50	442	100	SKIN
NDS/NDSCh	POL	100		200		SKIN
TLV	ROU	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN
ACGIH			20			

SECTION 8. Exposure controls/personal protection ... / >>

1-METHOXY-2-PROPANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	375	100	568	150	SKIN
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
VLA	ESP	375	100	568	150	SKIN
VLEP	FRA	188	50	375	100	SKIN
TLV	GRC	360	100	1080	300	
AK	HUN	375		568		SKIN
VLEP	ITA	375	100	568	150	SKIN
VLE	PRT	375	100	568	150	
NDS/NDSCh	POL	180		360		SKIN
TLV	ROU	375	100	568	150	SKIN
WEL	GBR	375	100	560	150	SKIN
OEL	EU	375	100	568	150	SKIN
ACGIH		184	50	368	100	

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	275	50	550	100	SKIN
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
VLA	ESP	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
TLV	GRC	275	50	550	100	
AK	HUN	275	50	550	100	
VLEP	ITA	275	50	550	100	SKIN
VLE	PRT	275	50	550	100	SKIN
NDS/NDSCh	POL	260		520		SKIN
TLV	ROU	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	SKIN
OEL	EU	275	50	550	100	SKIN

BUTANE-1,4-DIOL

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				8 mg/kg bw/d				
Inhalation		340 mg/m3		29 mg/m3		958 mg/m3		136 mg/m3
Skin				8 mg/kg bw/d				19 mg/kg bw/d

HYDROCARBONS, C9, AROMATIC

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				7,5 mg/kg bw/d				
Inhalation				32 mg/m3				151 mg/m3
Skin				7,5 mg/kg bw/d				12,5 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.

SECTION 8. Exposure controls/personal protection ... / >>

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.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.
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 ISO 16321).
RESPIRATORY PROTECTION
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. 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).
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.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value		Information
Appearance	liquid		
Colour	various		
Odour	characteristic		
Melting point / freezing point	not available		
Initial boiling point	130	°C	
Flammability	flammable liquid		
Lower explosive limit	not available		
Upper explosive limit	not available		
Flash point	30	°C	
Auto-ignition temperature	330	°C	
Decomposition temperature	not available		
pH	not available		
Kinematic viscosity	20,5		Temperature: 40 °C
Solubility	insoluble in water		
Partition coefficient: n-octanol/water	not available		
Vapour pressure	not available		
Density and/or relative density	1,1 - 1,4	g/cm3	
Relative vapour density	not available		
Particle characteristics	not applicable		

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	38,95 %	-	486,88	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.

N-BUTYL ACETATE
Decomposes on contact with: water.
1-METHOXY-2-PROPANOL
Dissolves various plastic materials.Stable in normal conditions of use and storage.
Absorbs and disolves in water and in organic solvents. With air it may slowly form explosive peroxides.

2-METHOXY-1-METHYLETHYL ACETATE
Stable in normal conditions of use and storage.
With the air it may slowly develop peroxides that explode with an increase in temperature.

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.

N-BUTYL ACETATE
Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides,potassium tert-butoxide.Forms explosive mixtures with: air.
XYLENE
Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May form explosive mixtures with: air.
1-METHOXY-2-PROPANOL
May react dangerously with: strong oxidising agents,strong acids.
2-METHOXY-1-METHYLETHYL ACETATE
May react violently with: oxidising substances,strong acids,alkaline metals.

10.4. Conditions to avoid

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

N-BUTYL ACETATE
Avoid exposure to: moisture,sources of heat,naked flames.
1-METHOXY-2-PROPANOL
Avoid exposure to: air.

10.5. Incompatible materials

N-BUTYL ACETATE
Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.
1-METHOXY-2-PROPANOL
Incompatible with: oxidising substances,strong acids,alkaline metals.
2-METHOXY-1-METHYLETHYL ACETATE
Incompatible with: oxidising substances,strong acids,alkaline metals.

BUTANE-1,4-DIOL
Strong oxidizing agents, amines, caustics, isocyanates, strong acids.

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.

BUTANE-1,4-DIOL
Carbon oxides, tetrahydrofuran.

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information

SECTION 11. Toxicological information ... / >>

2-METHOXY-1-METHYLETHYL ACETATE
The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Information on likely routes of exposure

1-METHOXY-2-PROPANOL
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

N-BUTYL ACETATE
WORKERS: inhalation; contact with the skin.

XYLENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

2-METHOXY-1-METHYLETHYL ACETATE
WORKERS: inhalation; contact with the skin.

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

1-METHOXY-2-PROPANOL
The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product. Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported.

N-BUTYL ACETATE
In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

XYLENE
Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

2-METHOXY-1-METHYLETHYL ACETATE
Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

Interactive effects

N-BUTYL ACETATE
A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

XYLENE
Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

1-METHOXY-2-PROPANOL

LD50 (Dermal):	13000 mg/kg Rabbit
LD50 (Oral):	5300 mg/kg Rat
LC50 (Inhalation vapours):	54,6 mg/l/4h Rat

SECTION 11. Toxicological information ... / >>

N-BUTYL ACETATE

LD50 (Dermal):	> 5000 mg/kg Rabbit
LD50 (Oral):	> 6400 mg/kg Rat
LC50 (Inhalation vapours):	21,1 mg/l/4h Rat

XYLENE

LD50 (Dermal):	4350 mg/kg Rabbit
ATE (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	3523 mg/kg Rat
LC50 (Inhalation vapours):	26 mg/l/4h Rat
ATE (Inhalation vapours):	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

HYDROCARBONS, C9, AROMATIC

LD50 (Dermal): > 3160 mg/kg Rabbit (equivalente o similare a OECD 402)
Method: study report (1977)
Reliability (Klimisch score): 2
Species: Rat (Charles River CD; Male/Female)
Routes of exposure: oral
Results: LD50 (female) = 3492 mg/kg; LD50 (male)= 6984mg/kg

Method: equivalent or similar to OECD 403
Reliability (Klimisch score): 1
Species: Rat (Crl: CDBR; Male/Female)
Routes of exposure: inhalation (vapours)
Results: LC50 > 6193 mg/m3 4h

Method: equivalent or similar to OECD 402
Reliability (Klimisch score): 2
Species: rabbit (New Zealand White; Male/Female)
Routes of exposure: dermal
Results: LD50 > 3160 mg/kg.

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Dermal):	> 5000 mg/kg Rat
LD50 (Oral):	8530 mg/kg Rat

BUTANE-1,4-DIOL

LD50 (Dermal):	> 2000 mg/kg Rat Sprague-Dawley (BASF-internal standard)
LD50 (Oral):	1500 mg/kg Rat Sprague-Dawley (equivalente o similare a OECD 401)
LC50 (Inhalation mists/powders):	51 mg/l/4h Rat Wistar (OECD 403, Aerosol)

Method: comparable to OECD 401
Reliability (Klimisch score): 2
Species: Rat (Male/Female Sprague-Dawley)
Routes of exposure: oral
Results LD50: 1500 mg/kg
The substance is classified as acute oral toxicant Cat. 4

Method: OECD 403
Reliability (Klimisch score): 1
Species: Rat (Male/Female Wistar)
Routes of exposure: inhalation (aerosol)
LC50 results: > 5.1 mg/l 4h

Method: BASF
Reliability (Klimisch score): 2
Species: Rat (Male/Female Sprague-Dawley)
Routes of exposure: dermal
LD50 results: > 2000 mg/kg.

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

SECTION 11. Toxicological information ... / >>

HYDROCARBONS, C9, AROMATIC
Method: OECD 404
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White)
Routes of exposure: dermal
Results: non-irritating

BUTANE-1,4-DIOL
Bibliographic reference: Acute toxicity of 1,4-butanediol in laboratory animals. (Polish Journal of Occupational Medicine 3, (4), 415 - 420 (1990))
Reliability (Klimisch score): 2
Species: rabbit (Vienna White)
Results: non-irritating.

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C9, AROMATIC
Method: equivalent or similar to OECD 405
Reliability (Klimisch score): 1
Species: rabbit (New Zealand White)
Routes of exposure: ocular
Results: non-irritating.

BUTANE-1,4-DIOL
Bibliographic reference: Acute toxicity of 1,4-butanediol in laboratory animals. (Polish Journal of Occupational Medicine 3, (4), 415 - 420 (1990))
Reliability (Klimisch score): 2
Species: White rabbit (New Zealand)
Results: non-irritating.

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Skin sensitization

HYDROCARBONS, C9, AROMATIC
Method: OECD 406
Reliability (Klimisch score): 1
Species: guinea pig
Routes of exposure: dermal
Results: non-sensitizing

BUTANE-1,4-DIOL
Bibliographic reference: Acute toxicity of 1,4-butanediol in laboratory animals. (Polish Journal of Occupational Medicine 3, (4) 415 - 420 (1990))
Reliability (Klimisch score): 2
Species: Guinea Pig (Hartley Male/Female)
Results: non-sensitizing.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C9, AROMATIC
Method: equivalent or similar to OECD 471 - in vitro test
Reliability (Klimisch score): 1
Species: S. typhimurium
Results: negative with and without metabolic activation

Method: equivalent or similar to OECD 475
Reliability (Klimisch score): 2
Species: Rat (Sprague-Dawley; Male/Female)
Routes of exposure: inhalation (vapours)
Results: negative

SECTION 11. Toxicological information ... / >>

BUTANE-1,4-DIOL
Method: OECD 473 - In vitro test
Reliability (Klimisch score): 1
In vitro tests
Species: Chinese hamster (lung fibroblasts)
Results: negative with metabolic activation - negative without metabolic activation

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

XYLENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

HYDROCARBONS, C9, AROMATIC
Based on available data, the substance does not have carcinogenic effects, therefore it is not classified for the relevant CLP hazard class.

BUTANE-1,4-DIOL
Method: NTP protocol, read across (γ-Butyrolactone)
Reliability (Klimisch score): 1
Species: Mouse (B6C3F1 Male/Female)
Routes of exposure: oral
Results: negative. NOAEL (carcinogenicity): 525 mg/kg body weight/day; LOAEL (toxicity): 262 mg/kg body weight/day

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C9, AROMATIC
Method: not indicated
Reliability (Klimisch score): 2
Species: Rat (Crj: CD(SD); Male/Female)
Routes of exposure: inhalation (vapours)
Results: negative

Adverse effects on sexual function and fertility

BUTANE-1,4-DIOL
Method: NTP protocol, read across (γ-Butyrolactone)
Reliability (Klimisch score): 1
Species: Mouse (B6C3F1 Male/Female)
Routes of exposure: oral
Results: negative. NOAEL (carcinogenicity): 525 mg/kg body weight/day; LOAEL (toxicity): 262 mg/kg body weight/day

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

HYDROCARBONS, C9, AROMATIC
The substance presents specific toxicity effects for target organs for single exposure [respiratory tract and central nervous system] and is classified under the relevant CLP hazard class.
If inhaled, it may irritate the respiratory tract and may cause drowsiness and dizziness.

BUTANE-1,4-DIOL
Based on available data, the substance exhibits specific target organ toxicity effects for single exposure and is classified under the relevant CLP hazard class.

Target organs

HYDROCARBONS, C9, AROMATIC
Respiratory tract and central nervous system

BUTANE-1,4-DIOL
Central nervous system.

Route of exposure

SECTION 11. Toxicological information ... / >>

HYDROCARBONS, C9, AROMATIC
Inhalation.

BUTANE-1,4-DIOL
Inhalation.

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C9, AROMATIC
Method: equivalent or similar to OECD 408
Reliability (Klimisch score): 2
Species: Rat (Sprague-Dawley; Male/Female)
Routes of exposure: oral
Results: negative. NOAEL= 600 mg/kg-day.

Method: equivalent or similar to OECD 452
Reliability (Klimisch score): 1
Species: Rat (Wistar; Male/Female)
Routes of exposure: inhalation (vapours)
Results: negative. NOAEC (Male)= 1800 mg/m3. NOAEC Female)= 900 mg/m3

BUTANE-1,4-DIOL
Method: NTP protocol
Reliability (Klimisch score): 1
Species: rat (Fischer 344 Male/Female)
Routes of exposure: oral
Results: negative. NOAEL: 225 mg/kg body weight/day

Method: equivalent or similar to OECD 412
Reliability (Klimisch score): 2
Species: rat (Crl:CD Male)
Routes of exposure: inhalation (aerosol)
Results: negative. NOEC: 1.1 mg/l

ASPIRATION HAZARD

Toxic for aspiration

HYDROCARBONS, C9, AROMATIC
Based on available data, the substance is hazardous in case of aspiration and is classified under the relevant CLP hazard class.

BUTANE-1,4-DIOL
There are no data available on the danger in case of aspiration.

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.

SECTION 12. Ecological information

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

12.1. Toxicity

HYDROCARBONS, C9, AROMATIC
LL50 - Fish 9.2 mg/L/96h Oncorhynchus mykiss (OECD 203)
EL50 - Crustaceans 3.2 mg/L/48h Daphnia magna (OECD 202)
EbL50(Algae): 2.6 mg/L/72h Pseudokirchneriella subcapitata (OECD 201)
ErL50(Algae): 2.9 mg/L/72h (Pseudokirchneriella subcapitata; OECD 201)

BUTANE-1,4-DIOL

LC50 - for Fish	> 30000 mg/l/96h Pimephales promelas (equivalente o similare a OECD 203)
EC50 - for Crustacea	813 mg/l/48h Daphnia magna (OECD 202)
EC50 - for Algae / Aquatic Plants	> 500 mg/l/72h Scenedesmus subspicatus (German standard DIN 38412 Part 9)
Chronic NOEC for Crustacea	> 85 mg/l/21d Daphnia magna (OECD 211)

SECTION 12. Ecological information ... / >>

12.2. Persistence and degradability

1-METHOXY-2-PROPANOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	
N-BUTYL ACETATE	
Solubility in water	1000 - 10000 mg/l
XYLENE	
Solubility in water	100 - 1000 mg/l
Rapidly degradable	
HYDROCARBONS, C9, AROMATIC	
Rapidly degradable	78% in 28 giorni (OECD 301 F)
2-METHOXY-1-METHYLETHYL ACETATE	
Solubility in water	> 10000 mg/l
Rapidly degradable	
BUTANE-1,4-DIOL	
Rapidly degradable	100% in 14d (OECD 301 C)

12.3. Bioaccumulative potential

1-METHOXY-2-PROPANOL	
Partition coefficient: n-octanol/water	< 1
N-BUTYL ACETATE	
Partition coefficient: n-octanol/water	2,3
BCF	15,3
XYLENE	
Partition coefficient: n-octanol/water	3,12
BCF	25,9
2-METHOXY-1-METHYLETHYL ACETATE	
Partition coefficient: n-octanol/water	1,2
BUTANE-1,4-DIOL	
BCF	3,16 International Specialty Products, Inc. (ISP)

12.4. Mobility in soil

N-BUTYL ACETATE	
Partition coefficient: soil/water	< 3
XYLENE	
Partition coefficient: soil/water	2,73

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

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.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
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: UN 1263

14.2. UN proper shipping name

ADR / RID: PAINT or PAINT RELATED MATERIAL
IMDG: PAINT or PAINT RELATED MATERIAL
IATA: PAINT or PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO
IMDG: not marine pollutant
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special provision: 163, 367, 650		
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Passengers:	Maximum quantity: 60 L	Packaging instructions: 355
	Special provision:	A3, A72, A192	

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

SECTION 15. Regulatory information ... / >>

Seveso Category - Directive 2012/18/EU: P5c

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

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.

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:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H315	Causes skin 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.

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)

SECTION 16. Other information ... / >>

- 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
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- 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) 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
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) 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)
23. Delegated Regulation (UE) 2023/707
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- 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

SECTION 16. Other information ... / >>

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.

Changes to previous review:
The following sections were modified:
04 / 09 / 11 / 12 / 13 / 14 / 15.