SAFETY SHEET **114**

CTW 057

1 IDENTIFICATION OF THE MIXTURE AND THE COMPANY

1.1 Product Identifier

Product name	CTW 057

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

Description/Application	CATALYST FOR SEAL VARNISH BICO

1. 3 Details of the supplier of the safety data sheet

Name:	BERICALCE S.R.L.
Full address:	Via O. da Pordenone n.18 - 36100 Vicenza - Italia
Phone:	Tel: +39 0444 929102 +39 0444 654919
Fax:	Fax: +39 0444 929102
E-mail address of the competent person responsible to the Safety Data Sheet	info@bericalce.it

1.4 Emergency telephone number

For urgent inquiries refer to	SANITARY EMERGENCY

2 HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

The product is classified as hazardous according to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adaptationxs. The product thus requires a safey data sheet complies with the provisions of Regulation (EC) n. 1907/2006 and subsequent amendments. Furtherinformation on the risks to health and/or the environment are given in sec. 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 2	H225 Highly flammable liquid and vapour.
Acute toxicity, category 4	H332 Harmful if inhaled.
Serious eye damage, category 1	H318 Causes serious eye damage.
Skin irritation, category 2	H315 Causes skin irritation.
Specific target organ toxicity - single exposure, cat. 3	H335 May cause respiratory irritation.
Skin sensitization, category 1	H317 May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, cat.3	H336 May cause drowsiness or dizziness.

2.2 Label elements

Danger labeling under Regulation (EC) 1272/2008 (CLP) and subsequent amendments.

Hazard pictograms:

Warning: Danger

Hazard statements:
H225 Highly flammable liquid and vapour.
H332 Harmful if inhaled.
H318 Causes serious eye damage.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
EUH204 Contains isocyanates. May produce an allergic reaction.
Precautionary statements:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.Continue rinsing.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P310 Immediately call a POISON CENTER or a doctor.
P370+P378 In case of fire: use polyvalent powder / CO2 extinguishers to extinguish.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
Contains: HEXAMETHYLENE-1,6-DIISOCIANATE, HOMOPOLYMER
ETHYL ACETATE
N-BUTYL ACETATE
Hexamethylene-1,6-DIISOCYANATE

2.3. Other dangers

Corrosive.
Components of the product can attack the nervous system.
Severe eye irritant.
Causes severe irritation of the respiratory system.
May cause sensitization by skin contact.

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance

No relevant information.

3.2 Mixtures

It contains:

Identification	Conc. %.	Classification 1272/2008 (CLP).
ETHYL ACETATE		
CAS 141-78-6	38 ≤ x < 40	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 205-500-4		
INDEX 607-022-00-5		
Reg. no. 01-2119475103-46		
HEXAMETHYLENE-1,6-DIISOCIANATE, HOMOPOLYMER		
CAS 28182-81-2	24 ≤ x < 25,5	Acute Tox. 4 H332, STOT SE 3 H335, Skin Sens. 1 H317
EC 931-274-8		
INDEX		
Reg. no. 01-2119485796-17		
N-BUTYL ACETATE		
CAS 123-86-4	15 ≤ x < 16,5	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1		
INDEX 607-025-00-1		
Reg. no. 01-2119485493-29		

XYLENE (MIXTURE OF ISOMERS)
CAS 1330-20-7 15 ≤ x < 16,5 Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Classification note/notes according to Annex VI to the CLP Regulation: C
EC 215-535-7
INDEX 601-022-00-9
Reg. no. 01-2119488216-32
CYCLOHEXANONE
CAS 108-94-1 3,84 ≤ x < 4,04 Flam. Liq. 3 H226, Acute Tox. 4 H332
EC 203-631-1
INDEX 606-010-00-7
2-METHOXY-1-METHYLETHYL ACETATE
CAS 108-65-6 2,83 ≤ x < 3,03 Flam. Liq. 3 H226
EC 203-603-9
INDEX 607-195-00-7
Reg. no. 01-2119475791-29
The full wording of hazard (H) phrases is given in section 16 of the sheet.

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 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again. INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

There are no specific information on symptoms and effects caused by the product.

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

Information not available.

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 preventexplosions.

5.2 Special hazards arising from the substance or mixture

HAZARDS CAUSED BYEXPOSURE IN THE EVENTOF 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).

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 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.

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.
When performing transfer operations involving large containers, connect to an earthing system and wear fantistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during 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 the containers sealed, in a well ventilated place, away from direct sunlight. 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.

7.3 Specific end use(s)

Information not available.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
HUN	Magyarország	50/2011. (XII. 22.) NGM rendelet a munkahelyek kémiai biztonságáról
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r
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 - Diaro da Republica I 26; 2012-02-06
EU	OEL EU	Direttiva 2009/161/UE; Direttiva 2006/15/CE; Direttiva 2004/37/CE; Direttiva 2000/39/CE.
	TLV-ACGIH	ACGIH 2016

XYLENE (MIXTURE OF ISOMERS) Threshold Limit Value

Type	State	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
VLA	ESP	221	50	442	100	SKIN
TLV	EST	200	50	450	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
AK	HUN	221		442		SKIN
VLEP	ITA	221	50	442	100	SKIN
RD	LTU	221	50	442	100	SKIN
RV	LVA	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
TLV-ACGIH		434	100	651	150	

2-METHOXY-1-METHYLETHYL ACETATE Threshold Limit Value

Type	State	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
VLA	ESP	275	50	550	100	SKIN
TLV	EST	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
AK	HUN	275		550		
VLEP	ITA	275	50	550	100	SKIN
RD	LTU	250	50	400	75	SKIN
RV	LVA	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

CYCLOHEXANONE Threshold Limit Value

Type	State	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	80	20	80	20	SKIN
VLA	ESP	41	10	82	20	SKIN
TLV	EST	40,8	10	81,6	20	SKIN
VLEP	FRA	40,8	10	81,6	20	
AK	HUN	40,8		81,6		SKIN
VLEP	ITA	40,8	10	81,6	20	SKIN
RD	LTU	40,8	10	81,6	20	SKIN
RV	LVA	40,8	10	81,6	20	SKIN
VLE	PRT	40,8	10	81,6	20	SKIN
NDS/NDSCh	POL	40		80		SKIN
TLV	ROU	40,8	10	81,6	20	SKIN
WEL	GBR	41	10	82	20	SKIN
OEL	EU	40,8	10	81,6	20	SKIN
TLV-ACGIH		80	20	201	50	SKIN

ETHYL ACETATE Threshold Limit Value

Type	State	TWA/8h		STEL/15min		Remarks /Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	730	200	1460	400	
MAK	DEU	750	200	1500	400	
VLA	ESP	734	200	1468	400	
TLV	EST	500	150	1100	300	
VLEP	FRA	734	200	1468	400	
AK	HUN	734		1468		
RD	LTU	500	150	1100 (C)	300 (C)	
RV	LVA	200	54	1468	400	
VLE	PRT	734	200	1468	400	
NDS/NDSCh	POL	734		1468		
TLV	ROU	400	111	500	139	
WEL	GBR	734	200	1468	400	
OEL	EU	734	200	1468	400	
TLV-ACGIH		1441	400			

N-BUTYL ACETATE Threshold Limit Value

Type	State	TWA/8h		STEL/15min		Remarks /Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	300	62	600 (C)	124 (C)	
VLA	ESP	724	150	965	200	
TLV	EST	500	100	700	150	
VLEP	FRA	710	150	940	200	
AK	HUN	241		723		
RD	LTU	500	100	700	150	
RV	LVA	200				
NDS/NDSCh	POL	240		720		
TLV	ROU	715	150	950	200	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	

Legend:
(C) = CEILING ; INALAB = inhalable fraction ; RESPIR = Respirable fraction ; TORAC = Thoracic fraction.
VND = identified hazard but no DNEL/PNEC available; NEA = no expected exposure;
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 II 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, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (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.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Colour	Colourless
Odour	characteristic of solvent
Odour threshold	Not available
PH	Not available
Melting point / freezing point	Not available
Initial boiling point	> 35 °C
Boiling range.	Not available
Flash point	< 23 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not flamable
Upper infiammability limit	Not flamable
Lower explosive limit	Not explosive
Upper explosive limit	Not explosive
Vapour pressure	Not available
Vapour density	Not available
Relative density	0,93
Solubilità	insoluble
Partition coefficient:: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2 Other information

Total solids (250°C / 482°F) 285,00 %
VOC (Directive 2010/75/EC) : 71,50 % - 664,95 g/litre
VOC (volatile carbon) : 45,81 % - 426,04 g/litre

10 STABILITY AND REACTIVITY

10.1 Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.
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.
CYCLOHEXANONE
Attacks various types of plastic materials.
May condense under the effect of heat to form resinous compounds.
ETHYL ACETATE
Decomposes slowly into acetic acid and ethanol under the effect of light, air and water.
N-BUTYL ACETATE
Decomposes on contact with: water.

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.
XYLENE (MIXTURE OF ISOMERS)
Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May form explosive mixtures with: air.
2-METHOXY-1-METHYLETHYL ACETATE
May react violently with: oxidising substances,strong acids,alkaline metals.
CYCLOHEXANONE
Risk of explosion on contact with: hydrogen peroxide,nitric acid,heat,mineral acids.May react violently with: oxidising agents.Forms explosive mixtures with: air.
ETHYL ACETATE
Risk of explosion on contact with: alkaline metals,hydrides,oleum.May react violently with: fluorine,strong oxidising agents,chlorosulphuric acid,potassium tert-butoxide.Forms explosive mixtures with: 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.

10.4 Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.
CYCLOHEXANONE
Avoid exposure to: sources of heat,naked flames.
ETHYL ACETATE
Avoid exposure to: light,sources of heat,naked flames.
N-BUTYL ACETATE
Avoid exposure to: moisture,sources of heat,naked flames.

10.5 Incompatible materials

2-METHOXY-1-METHYLETHYL ACETATE
Incompatible with: oxidising substances,strong acids,alkaline metals.
ETHYL ACETATE
Incompatible with: acids,bases,strong oxidants,aluminium,nitrates,chlorosulphuric acid.Incompatible materials: plastic materials.
N-BUTYL ACETATE
Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

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.

11 TOXICOLOGICAL INFORMATION

Metabolism, toxicokinetics, mechanism of action and other 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

XYLENE (MIXTURE OF ISOMERS)

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.

N-BUTYL ACETATE

WORKERS: inhalation; contact with the skin.

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

XYLENE (MIXTURE OF ISOMERS)

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).

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.

Interactive effects

XYLENE (MIXTURE OF ISOMERS)

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.

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).

ACUTE TOXICITY

ATE (Inhalation) of the mixture: > 20 mg/l

ATE (Oral) of the mixture: Not classified (no significant component)

ATE (Dermal) of the mixture: >2000 mg/kg

XYLENE (MIXTURE OF ISOMERS)

LD50 (Oral) 3523 mg/kg Rat

LD50 (Dermal) 4350 mg/kg Rabbit

LC50 (Inhalation) 26 mg/l/4h Rat

2-METHOXY-1-METHYLETHYL ACETATE
LD50 (Oral) 8530 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rat
N-BUTYL ACETATE
LD50 (Oral) > 6400 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit
LC50 (Inhalation) 21,1 mg/l/4h Rat
HEXAMETHYLENE-1,6-DIISOCIANATE, HOMOPOLYMER
LD50 (Oral) > 2500 mg/kg RAT
LD50 (Dermal) > 2000 mg/kg RAT
LC50 (Inhalation) > 390 mg/l/4h RAT
SKIN CORROSION / IRRITATION
Causes skin irritation
SERIOUS EYE DAMAGE / IRRITATION
Causes serious eye damage
RESPIRATORY OR SKIN SENSITISATION
Sensitising for the skin
GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class
CARCINOGENICITY
Does not meet the classification criteria for this hazard class
XYLENE (MIXTURE OF ISOMERS)
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".
REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class
STOT - SINGLE EXPOSURE
May cause respiratory irritation
May cause drowsiness or dizziness
STOT - REPEATED EXPOSURE
Does not meet the classification criteria for this hazard class
ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class

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

HEXAMETHYLENE-1,6-DIISOCIANATE, HOMOPOLYMER

LC50 - for Fish	> 100 mg/l/96h DANIO RERIO
EC50 - for Crustacea	127 mg/l/48h
EC50 - for Algae / Aquatic	Plants > 1000 mg/l/72h SCENEDESMOS SUBSPICATUS
Chronic NOEC for Algae / Aquatic Plants	> 100 mg/l DAPHNIA MAGNA

12.2 Persistence and degradability
XYLENE (MIXTURE OF ISOMERS)
Solubility in water 100 - 1000 mg/l
Degradability: information not available
2-METHOXY-1-METHYLETHYL ACETATE
Solubility in water > 10000 mg/l
Rapidly degradable
CYCLOHEXANONE
Solubility in water 0,1 - 100 mg/l
Rapidly degradable
ETHYL ACETATE
Solubility in water > 10000 mg/l
Rapidly degradable
N-BUTYL ACETATE
Solubility in water 1000 - 10000 mg/l
HEXAMETHYLENE-1,6-DIISOCIANATE, HOMOPOLYMER
NOT rapidly degradable

12.3 Bioaccumulative potential
XYLENE (MIXTURE OF ISOMERS)
Partition coefficient: n-octanol/water 3,12
BCF 25,9
2-METHOXY-1-METHYLETHYL ACETATE
Partition coefficient: n-octanol/water 1,2
CYCLOHEXANONE
Partition coefficient: n-octanol/water 0,86
ETHYL ACETATE
Partition coefficient: n-octanol/water 0,68
BCF 30
N-BUTYL ACETATE
Partition coefficient: n-octanol/water 2,3
BCF 15,3

12.4 Mobility in soil
XYLENE (MIXTURE OF ISOMERS)
Partition coefficient: soil/water 2,73
CYCLOHEXANONE
Partition coefficient: soil/water 1,18
N-BUTYL ACETATE
Partition coefficient: soil/water < 3

12.5 Results of PBT and vPvB assessment
vPvB substances contained:
HEXAMETHYLENE-1,6-DIISOCIANATE, HOMOPOLYMER
PBT substances contained:
HEXAMETHYLENE-1,6-DIISOCIANATE, HOMOPOLYMER

12.6 Other adverse effects
IInformation not available

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.

14 TRANSPORT INFORMATION

14.1 Road and rail (ADR / RID)

ADR / RID, IMDG, IATA: 1263

14.2 Sea transport (IMO / IMDG)

ADR / RID: PAINT RELATED MATERIAL
IMDG: PAINT RELATED MATERIAL
IATA: 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 Internal navigation routes (ICAO / IATA)

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID: HIN - Kemler: 33 Limited Quantities: 5 L Tunnel restriction code: (D/E)
Special Provision: 640C
IMDG: EMS: F-E, S-E Limited Quantities: 5 L
IATA: Cargo: Maximum quantity: 60 L Packaging instructions: 364
Pass.: Maximum quantity: 5 L Packaging instructions: 353
Special Instructions: A3, A72, A192

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

Information not relevant

15 REGULATORY INFORMATION

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

Seveso Category - Directive 2012/18/EC: P5c
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40
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 (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 Standards / laws specific to the substance or mixture in the field of safety, health and the environment

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

16 OTHER INFORMATIONS

Text of hazard (H) indications mentioned in section 2-3 of the sheet:
Flam. Liq. 2 Flammable liquid, category 2
Flam. Liq. 3 Flammable liquid, category 3
Acute Tox. 4 Acute toxicity, category 4
Eye Dam. 1 Serious eye damage, category 1
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
Skin Sens. 1 Skin sensitization, category 1
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH204 Contains isocyanates. May produce an allergic reaction.

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 Parliament8. 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

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.

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.

BeriCalce S.r.l.
Via Odorico da Pordenone, 18 - 36100 Vicenza - ITALIA
Tel./Fax (+39) 0444 929102 - Tel. (+39) 0444 654919
Skype: bericalce - info@bericalce.com
bericalce.com

Revision nr.2
Date of issue 24.09.2021
Printed on 24.09.2021