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 13000-2716-Grey 310 ml**
411 00 14645-2741-White 310 ml
411 00 14650-2742-Black 310 ml
411 00 17820-4528-Grey 600 ml
411 00 17830-4529-Black 600 ml
411 00 17840-4530-White 600 ml

Product name **SUPERFLEX**

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

Intended use **One-component elastic sealant for industrial uses**

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:

Respiratory sensitization, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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:

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
EUH204	Contains isocyanates. May produce an allergic reaction.

Precautionary statements:

P342+P311	If experiencing respiratory symptoms: call a POISON CENTER / doctor.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P284	[In case of inadequate ventilation] wear respiratory protection.
Contains:	POLYMETHYLENE POLYPHENYL POLYISOCYANATE TRIS(NONYLPHENYL)PHOSPHITE

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)**
XYLENE (MIXTURE OF ISOMERS)		
CAS 1330-20-7	5 ≤ x < 6	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		
INDEX 601-022-00-9		
Reg. no. 01-2119488216-32-XXXX		
ETHYL ACETATE		
CAS 141-78-6	1 ≤ x < 1,5	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-XXXX		
POLYMETHYLENE POLYPHENYL POLYISOCYANATE		
CAS 9016-87-9	0,85 ≤ x < 0,95	Carc. 2 H351, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317

EC -

INDEX 615-005-00-9

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

CAS 52829-07-9 | 0,3 ≤ x < 0,35 | Eye Dam. 1 H318, Aquatic Chronic 1 H410 M=1

EC 258-207-9

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Reg. no. 01-2119537297-32-XXXX

DIPHENYLMETHANE-4,4'-DIISOCYANATE

CAS 101-68-8 | 0,25 ≤ x < 0,3 | Carc. 2 H351, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: 2 C

EC 202-966-0

INDEX 615-005-00-9

Reg. no. 01-2119457014-47-XXXX

TRIS(NONYLPHENYL)PHOSPHITE

CAS 26523-78-4 | 0,2 ≤ x < 0,25 | Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1

EC 247-759-6

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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 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. 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 antistatic 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

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

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
TLV	NOR	108	25			SKIN
VLE	PRT	221	50	442	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	mg/kg
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	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				12,5 mg/kg bw/d				
Inhalation	260 mg/m3	260 mg/m3	65,3 mg/m3	65,3 mg/m3	442 mg/m3	442 mg/m3	221 mg/m3	221 mg/m3
Skin				125 mg/kg bw/d				212 mg/kg bw/d

ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	734	200	1468	400	
VLEP	FRA	1400	400			
WEL	GBR	734	200	1468	400	
VLEP	ITA	734	200	1468	400	
TLV	NOR	734	200			
VLE	PRT	734	200	1468	400	
OEL	EU	734	200	1468	400	
TLV-ACGIH		1441	400			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,24	mg/l
Normal value in marine water	0,024	mg/l
Normal value for fresh water sediment	1,15	mg/kg
Normal value for marine water sediment	0,115	mg/kg
Normal value of STP microorganisms	650	mg/l
Normal value for the food chain (secondary poisoning)	0,2	mg/kg
Normal value for the terrestrial compartment	0,148	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				4,5 mg/kg bw/d				
Inhalation	734 mg/m3	734 mg/m3	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin				37 mg/kg bw/d				63 mg/kg bw/d

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,019	mg/l
Normal value in marine water	0,002	mg/l
Normal value for fresh water sediment	29	mg/kg
Normal value for marine water sediment	2,9	mg/kg
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	5,9	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				0,05 mg/kg bw/d				
Inhalation				0,17 mg/m3				0,68 mg/m3
Skin				0,25 mg/kg bw/d				0,5 mg/kg bw/d

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations

		mg/m3	ppm	mg/m3	ppm
VLA	ESP	0,052	0,005		
VLEP	FRA	0,1	0,01	0,2	0,02
TLV	NOR	0,05	0,005		
TLV-ACGIH		0,051	0,005		

Predicted no-effect concentration - PNEC		
Normal value in fresh water	1	mg/l
Normal value in marine water	0,1	mg/l
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	1	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	0,05 mg/m3		0,025 mg/m3		0,1 mg/m3		0,05 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.

HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

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

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

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

ETHYL ACETATE

Butyl rubber gloves (opening times> 480 minutes), Neoprene ™ rubber, nitrile rubber (opening times up to 480 minutes).

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	paste
Colour	various
Odour	typical
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	not flammable
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	133
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	60000 - 135000 cps
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) : 6,90 % - 91,77 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.

ETHYL ACETATE

It slowly decomposes to acetic acid and ethanol due to the action of light, air and water. Stable under normal conditions. Upon storage, it is slowly decomposed by water.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Decomposes at 274°C/525°F.

With water it develops carbon dioxide and forms an insoluble solid polymer and consequently any wet material recovered must be stored in open containers.

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.

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.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

May react dangerously with: alcohols,amines,ammonia,sodium hydroxide,acids,water,strong acids,strong bases.

10.4. Conditions to avoid

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

ETHYL ACETATE

Avoid exposure to: light,sources of heat,naked flames.

Ignition sources.

10.5. Incompatible materials

ETHYL ACETATE

Incompatible with: acids,bases,strong oxidants,aluminium,nitrates,chlorosulphuric acid.Incompatible materials: plastic materials.

Oxidizing agents, acids, alkalis.

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.

ETHYL ACETATE

Carbon oxides on combustion.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

May develop: nitric oxide,carbon oxides,hydrogen cyanide.

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

XYLENE (MIXTURE OF ISOMERS)

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

DIPHENYLMETHANE-4,4'-DIISOCYANATE

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

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.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Causes symptoms of irritation of the eye mucous membranes, upper respiratory and digestive tract and also to the skin; lung irritation of the bronchitis type (chest pains, cough, asthmatic wheezing), neurological symptoms (dizziness, balance disorders, headaches and consciousness disturbances). In severe cases, may give rise to delayed pulmonary edema (INRS, 2009). May cause hypersensitivity pneumonia which, in the event of continuous exposure, may progress to interstitial fibrosis (INRS, 2009).

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.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Cross sensitisations with other isocyanates are possible, in particular with TDI (toluene diisocyanate).

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:
> 20 mg/l
LD50 (Oral) of the mixture:
Not classified (no significant component)
LD50 (Dermal) of the mixture:
>2000 mg/kg

XYLENE (MIXTURE OF ISOMERS)

Method: Equivalent or similar to EU Method B.1
Reliability: 1
Species: Rat (F344 / N; male / female)
Route of exposure: Oral
Results: LD50 = 3523 mg / kg bw
Method: Equivalent or similar to EU Method B.2
Reliability: 2
Species: Rat (male)
Route of exposure: Inhalation (vapors)
Results: LD50 = 6700 ppm

ETHYL ACETATE

Method: Multi-Substance Rule for the Testing of Neurotoxicity 40 CFR Part 799 (58 FR 40262)
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative
Method: Not indicated
Reliability: 2
Species: Rabbit (New Zealand White; male)
Route of exposure: Dermal
Results: LD50> 20 000 mg / kg bw

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

Method: Equivalent or similar to OECD 423
Reliability: 2
Species: Rat (CFY; male / female)
Route of exposure: Oral
Results: LD50 = 3700 mg / kg bw
Method: Equivalent or similar to OECD 403
Reliability: 2
Species: Rat (Tif. RAI; male / female)
Route of exposure: Inhalation (aerosol)
Results: LC50 = 500 mg / m3 air
Method: Equivalent or similar to OECD 402
Reliability: 2

Species: Rat (Tif. RAI; male / female)
Route of exposure: Dermal
Results: LD50 = 3170 mg / kg bw

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Method: 84/449 / EEC-Read across
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Oral
Results: LD50> 2000 mg / kg bw
Method: Equivalent or similar to OECD 402
Reliability: 2
Species: Rabbit (male / female)
Route of exposure: Dermal
Results: LD50> 9400 mg / kg bw
Method: OECD 403
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Inhalation (aerosol)
Results: LC50 = 367.95 mg / m3 air

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

Method: EPA OPP 81-5
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Not irritating

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Method: OECD 404-Read across
Reliability: 1
Species: Rabbit (HC: NZW)
Route of exposure: Dermal
Results: Irritating

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

ETHYL ACETATE

Method: OECD 405
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

Method: OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular

Results: Category 1 (irreversible effects on the eye)

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Method: OECD 404-Read across
Reliability: 1
Species: Rabbit (HC: NZW)
Route of exposure: Ocular
Results: Irritating

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the respiratory system
May produce an allergic reaction.Contains:
BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

Method: OECD 406
Reliability: 2
Species: guinea pig (Pirbright-Hartley; male / female)
Route of exposure: Dermal
Results: Not sensitizing

Respiratory sensitization
DIPHENYLMETHANE-4,4'-DIISOCYANATE

Method: Not indicated
Reliability: 2
Species: guinea pig (Dunkin-Hartley; female)
Route of exposure: Inhalation
Results: Sensitizing

Skin sensitization
ETHYL ACETATE

Method: OECD 406
Reliability: 1
Species: guinea pig (Dunkin-Hartley; female)
Route of exposure: Dermal
Results: Not sensitizing

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Method: Equivalent or similar to OECD 406-Read across
Reliability: 2
Species: guinea pig (Hartley; male / female)
Route of exposure: Dermal
Results: Not sensitizing

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

Method: Equivalent or similar to EU Method B.10-in vitro test
Reliability: 2
Species: Chinese hamster
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD 478
Reliability: 2

Species: Mouse (Swiss Webster; male / female)
Route of exposure: Dermal
Results: Negative

ETHYL ACETATE

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 474 in vivo test
Reliability: 2
Species: Chinese hamster (male / female)
Route of exposure: Oral
Results: Negative

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

Method: OECD 476 in vitro test
Reliability: 1
Species: Chinese hamster
Results: Negative with and without metabolic activation

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Method: EU Method B.13 / 14-in vitro test
Reliability: 2
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: OECD 489-test in vivo
Reliability: 1
Species: Rat (Wistar; male)
Route of exposure: Inhalation (aerosol)
Results: Negative

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".

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

ETHYL ACETATE

Method: Equivalent or similar to OECD 416
Reliability: 1
Species: Mouse (CD-1; male / female)
Route of exposure: Oral
Results: Negative

Method: Equivalent or similar to OECD 414
Reliability: 2
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation
Results: Negative

Adverse effects on sexual function and fertility
XYLENE (MIXTURE OF ISOMERS)

Method: Not indicated
Reliability: 2
Species: Rat (Crl-CD® (SC) BR; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC (fertility) = 500 ppm

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

Method: OECD 415
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Oral
Results: Negative, NOAEL (fertility) = 30 mg / kg bw / day

Adverse effects on development of the offspring
XYLENE (MIXTURE OF ISOMERS)

Method: Equivalent or similar to OECD 414
Reliability: 2
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation (vapors)
Results: Negative (development)

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Method: OECD 414-Read across
Reliability: 1
Species: Rat (Wistar)
Route of exposure: Inhalation (aerosol)
Results: Positive, NOAEC (development) = 4 mg / m3 air

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

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

ETHYL ACETATE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

POLYMETHYLENE POLYPHENYL POLYISOCYANATE

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

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

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

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

TRIS(NONYLPHENYL)PHOSPHITE

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

Target organ
ETHYL ACETATE

Central nervous system

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Respiratory System

Route of exposure
ETHYL ACETATE

Inhalation

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

Method: Equivalent or similar to OECD 408
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: Negative

ETHYL ACETATE

Method: Equivalent or similar to EPA OTS 795.2600
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL 900 mg / kg bw / day
Method: EPA OTS 798.2450
Reliability: 1
Species: Rat (Crl: CD®BR; male / female)
Route of exposure: Inhalation
Results: LOEC 350 ppm

POLYMETHYLENE POLYPHENYL POLYISOCYANATE

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

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

Method: Equivalent or similar to OECD 408
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: Negative, NOEL <29 mg / kg bw / day

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Method: Equivalent or similar to OECD 453-Read across
Reliability: 2
Species: Rat (Wistar; male / female)
Route of exposure: Inhalation (aerosol)
Results: Negative, NOAEC = 0.2 mg / m3 air

TRIS(NONYLPHENYL)PHOSPHITE

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
DIPHENYLMETHANE-4,4'-DIISOCYANATE

Respiratory System

Route of exposure
DIPHENYLMETHANE-4,4'-DIISOCYANATE

Inhalation

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

12.1. Toxicity

XYLENE (MIXTURE OF ISOMERS)	
LC50 - for Fish	2,6 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h
EC50 - for Algae / Aquatic Plants	1,3 mg/l/72h
EC10 for Algae / Aquatic Plants	0,44 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	0,44 mg/l
DIPHENYLMETHANE-4,4'-DIISOCYANATE	
LC50 - for Fish	1000 mg/l/96h
EC50 - for Crustacea	1000 mg/l/48h
EC50 - for Algae / Aquatic Plants	1640 mg/l/72h

EC10 for Algae / Aquatic Plants	1640 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	1640 mg/l

BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE

LC50 - for Fish	4,4 mg/l/96h
EC50 - for Algae / Aquatic Plants	0,705 mg/l/72h
EC10 for Algae / Aquatic Plants	0,188 mg/l/72h
Chronic NOEC for Crustacea	4 mg/l

12.2. Persistence and degradability

XYLENE (MIXTURE OF ISOMERS)
Rapidly degradable in water, 98% in 28 days
ETHYL ACETATE
Rapidly degradable, 60% in 10 days.
BIS (2,2,6,6-TETRAMETHYL-4-PIPERIDYL) SEBACATE
Not rapidly degradable in water, 10% in 28 days.

ETHYL ACETATE

Solubility in water	> 10000 mg/l
Rapidly degradable	

XYLENE (MIXTURE OF ISOMERS)

Solubility in water	100 - 1000 mg/l
Degradability: information not available	

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Solubility in water	0,1 - 100 mg/l
NOT rapidly degradable	

12.3. Bioaccumulative potential

ETHYL ACETATE

Partition coefficient: n-octanol/water	0,68
BCF	30

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: n-octanol/water	3,12
BCF	25,9

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Partition coefficient: n-octanol/water	4,51

12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS)

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

ETHYL ACETATE
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. Empty containers may contain highly flammable residues. Do not cut, grind, puncture, weld or dispose of containers unless adequate precautions have been taken against this hazard. Do not remove the container labels until they are cleaned. Send to drum recovery or metal recovery.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

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 - 40

Contained substance

Point	56	POLYMETHYLENE POLYPHENYL POLYISOCYANATE
Point	56	DIPHENYLMETHANE-4,4'-DIISOCYANATE Reg. no.: 01-2119457014-47-XXXX

Substances in Candidate List (Art. 59 REACH)

TRIS(NONYLPHENYL)PHOSPHITE

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:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Carc. 2	Carcinogenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
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
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H351	Suspected of causing cancer.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
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
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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
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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.