

SAFETY DATA SHEET

According to Annex II to REACH - Regulation 2015/830

ZR

One-component elastic sealant suitable
for various types of use

Revision n. **02**
Dated **16/04/2021**
Printed on **16/04/2021**

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Replaced revision: 01
(Dated: 30/11/2013)



1 - Identification of the substance/mixture and of the company/undertaking

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

Intended use	One-component elastic sealant suitable for various types of use
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Identified Uses	Industrial	Professional	Consumer
SEALANTS AND ADHESIVES FORMULATIONS IN INDUSTRY	SU: 10. ERC: 2. PROC: 3, 4, 5, 8a, 8b, 9. PC: 1.	-	-
INDUSTRIAL APPLICATIONS OF SEALANTS AND ADHESIVES	SU: 17, 19. ERC: 5, 8b. PROC: 10, 8a, 8b. PC: 1.	SU: 17, 19. ERC: 5, 8b. PROC: 10, 8a, 8b. PC: 1.	-
CHEMICAL SUBSTANCE USE IN LABORATORY, INDUSTRIAL	PROC: 15. PC: 1, 21.	-	-

1.3. Details of the supplier of the safety data sheet

Name	Tecfi S.p.A.
Full Address	S.S.Appia km 193
District and Country	81050 Pastorano (CE) - Italia - tel. 0823 88 3338 - fax 0823 - 883260
e-mail (of the competent person responsible for the Safety Data Sheet)	rdc@tecfi.it

1.4. Emergency telephone number

For urgent inquiries refer to	Osp. NIGUARDA CA' GRANDA – Milano 02/66101029 CAV Policlinico "A. Gemelli" - Roma 06/3054343 Osp. "A. Cardarelli" - Napoli 081/7472870
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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.
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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:

P284	[In case of inadequate ventilation] wear respiratory protection
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: call a POISON CENTER / doctor / . . .
Contains	DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES. 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%

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3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
REACTIVE MIXTURE OF ETHYLBENZENE, m-XYLENE AND p-XYLENE		
CAS - EC 905-562-9 INDEX. - Reg. no. 01-2119555267-33	$0 \leq x < 5,7$	Flam. Liq. 2 H225, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335
XYLENE (BENZENE <0.01%)		
CAS 1330-20-7 EC 215-535-7 INDEX. 601-022-00-9 Reg. no. 01-2119488216-32-XXXX	$5 \leq x < 6$	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: C
ETHYL ACETATE		
CAS 141-78-6 EC 205-500-4 INDEX. 607-022-00-5 Reg. no. 01-2119475103-46	$1 \leq x < 1,5$	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES		
CAS 9016-87-9 EC - INDEX. - Reg. no. -	$0,89 \leq x < 1$	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
BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE		
CAS 52829-07-9 EC 258-207-9 INDEX. - Reg. no. 01-2119537297-32-XXXX	$0,3 \leq x < 0,35$	Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411
DIPHENYLMETHANE-4,4'-DIISOCYANATE		
CAS 101-68-8 EC 202-966-0 INDEX. 615-005-00-9 Reg. no. 01-2119457014-47-XXXX	$0,25 \leq x < 0,3$	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
TRIS(NONYLPHENYL)PHOSPHITE		
CAS 26523-78-4 EC 202-966-0 INDEX. 615-005-00-9 Reg. no. 01-2119520601-54-XXXX	$0,2 \leq x < 0,25$	Skin Sens. 1 H317, Aquatic Chronic 2 H411

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

The two substances with no. REACH: 01-2119555267-33 and Nr. REACH: 01-2119488216-32 constitute a mixture in variable proportions and then the maximum percentage to be considered in the finished product is equal to the maximum considered for only one of them. They having the same classification, each combination does not involve changes in the final classification of the mixture.

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. 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 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).

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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.

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 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.

Storage class TRGS 510 (Germany): 10

7.3. Specific end use(s)

Information not available

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8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

CZE - Česká Republika - Nařízení vlády č. 246/2018 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů

DEU - Deutschland - TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte

DNK - Danmark - Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019

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

FIN - Suomi - HTP-VÄRDEN 2018. Koncentrationer som befunnits skadliga. SOCIAL- OCH

HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 10/2018

GRC - Ελλάδα - ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018

HRV - Hrvatska - Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 91/18)

ITA - Italia - Decreto Legislativo 9 Aprile 2008, n.81

NOR - Norge - attsatt 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

NLD - Nederland - Regeling van de Staatssecretaris van Sociale Zaken en Werkgelegenheid van 13 juli 2018, 2018-0000118517 tot wijziging van de Arbeidsomstandighedenregeling in verband met de implementatie van Richtlijn 2017/164 in Bijlage XIII

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

POL - Polska - ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r

SWE - Sverige - Hygieniska gränsvärden, AFS 2018:1

SVN - Slovenija - Uradni list Republike Slovenije 20.12.2019 - Uradnem listu RS št. 78/19 -PRAVILNIK o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu

GBR - United Kingdom - EH40/2005 Workplace exposure limits (Third edition, published 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 2020

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DIISONONYL PHTHALATE

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Note
TLV	CZE	3	0,171	10	0,58	
GVI/KGVI	HRV	5	-	-	-	
NGV/KGV	SWE	3	-	5 (C)	-	

XYLENE (BENZENE <0.01%)

TLV	CZE	200	-	400	-	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
WEL	GBR	220	50	441	100	
TLV	GRC	435	100	650	150	
GVI/KGVI	HRV	221	50	442	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
TGG	NLD	210	-	442	-	SKIN
NDS/NDSch	POL	100	-	-	-	
NGV/KGV	SWE	221	50	442	100	SKIN
MV	SVN	221	50	-	-	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 for water, intermittent release	0,327	mg/l
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

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	-	-	VND	1,6 mg/kg/d	-	-	-	-
Inhalation	-	-	VND	14,8 mg/m3	289 mg/kg	VND	VND	77 mg/m3
Skin	-	-	VND	108 mg/kg/d	-	-	VND	180 mg/kg/d

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REACTIVE MIXTURE OF ETHYLBENZENE, m-XYLENE AND p-XYLENE

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Note
TLV-ACGIH	-	221	50	442	100	-

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 for water, intermittent release	0,327	mg/l
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

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	-	-	-	VND	1,6 mg/kg	-	-	-
Inhalation	VND	-	174 mg/m3	VND	14,8 mg/m3	289 mg/m3	VND	77 mg/m3
Skin	-	-	-	VND	108 mg/kg	-	VND	180 mg/kg

ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Note
TLV	CZE	700	194,6	900	250,2	-
AGW	DEU	730	200	1460	400	-
MAK	DEU	750	200	1500	400	-
VLA	ESP	734	200	1468	400	-
VLEP	FRA	1400	400	-	-	-
WEL	GBR	734	200	1468	400	-
TLV	GRC	737	200	1468	400	-
GVI/KGVI	HRV	734	200	1468	400	-
VLEP	ITA	734	200	1468	400	-
TGG	NLD	734	-	1468	-	-
NDS/NDSch	POL	734	-	1468	-	-
VLE	PRT	734	200	1468	400	-
MV	SVN	734	200	1468	400	-
NGV/KGV	SWE	734	150	1100	300	-
OEL	EU	734	200	1468	400	-
TLV-ACGIH	-	1441	400	-	-	-

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Predicted no-effect concentration - PNEC

Normal value in fresh water	0,26	mg/l
Normal value in marine water	0,026	mg/l
Normal value for fresh water sediment	1,25	mg/kg
Normal value for marine water sediment	0,125	mg/kg
Normal value for water, intermittent release	1,65	mg/l
Normal value of STP microorganisms	650	mg/l
Normal value for the terrestrial compartment	0,24	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	-	-	VND	4,5 mg/kg	-	-	-	-
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	-	-	VND	37 mg/kg	-	-	VND	63 mg/kg

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Note
TLV-ACGIH	-	-	0,005	-	-	-

BUMETRIZOLE

TLV-ACGIH	-	10	-	-	-	-
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BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,005	mg/l
Normal value in marine water	0,0005	mg/l
Normal value for fresh water sediment	8,02	mg/kg
Normal value for marine water sediment	0,802	mg/kg
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	1,6	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	1 mg/kg	VND	1 mg/kg				
Inhalation	VND	1,4 mg/m3	VND	1,4 mg/m3	VND	5,6 mg/m3	VND	5,6 mg/m3
Skin	VND	1 mg/kg	VND	1 mg/kg	VND	2 mg/kg	VND	2 mg/kg

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DIPHENYLMETHANE-4,4'-DIISOCYANATE

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Note
TLV	CZE	0,05	-	0,1	-	-
AGW	DEU	0,05	-	0,05	-	-
MAK	DEU	0,05	-	0,05	-	INHAL
MAK	DEU	0,05	-	0,05	-	SKIN
TLV	DNK	0,05	0,005	0,1	0,01	-
VLA	ESP	0,052	0,005	-	-	-
VLEP	FRA	0,1	0,01	0,2	0,02	-
TLV	GRC	0,2	-	0,2	-	-
TLV	NOR	0,05	0,005	-	-	-
NDS/NDSch	POL	0,05	-	0,2	-	-
NGV/KGV	SWE	0,03	0,002	0,05 (C)	0,005 (C)	-
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 for water, intermittent release	10	mg/l
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	1	mg/kg

Salute - Livello derivato di non effetto - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation	0,05 mg/m3	0,05	0,025 mg/m3	0,025	0,1 mg/m3	-	0,05 mg/m3	-

2,2 - DIMORPHOLINODIETHYL ETHER

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,1	mg/l
Normal value in marine water	0,01	mg/l
Normal value for fresh water sediment	8,2	mg/kg
Normal value for marine water sediment	0,82	mg/kg
Normal value for water, intermittent release	1	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	1,58	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	-	-	VND	0,5 mg/kg/d	-	-	-	-
Inhalation	-	-	VND	1,8 mg/m3	-	-	VND	7,28 mg/m3
Skin	-	-	VND	0,5 mg/m3	-	-	VND	1 mg/kg/d

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Legenda:

(C) = CEILING ; INALAB = Frazione Inalabile ; RESPIR = Frazione Respirabile ; TORAC = Frazione Toracica.

VND = pericolo identificato ma nessun DNEL/PNEC disponibile ; NEA = nessuna esposizione prevista ; NPI = nessun pericolo identificato.

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 your hands with work gloves, category III (ref. standard EN 374). For the final choice of material you need to assess the type of use. In case of contact for the short term or as protection against splashes, use gloves made of nitrile (0.3mm thickness, permeation time >480 min.). In the event of continued exposure use butyl rubber gloves (0.4mm thickness, permeation time > 480 min.). Contaminated gloves should be removed.

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

In case of exceeding the threshold value (eg, TLV-TWA) of the substance or one or more of the substances present in the product, it is advisable to wear a mask with filter type A for organic vapors, the class (1, 2 or 3) must be chosen according to the limit concentration of use (1000, 5000 or 10000 ppm) (ref. standard EN 14387).

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	paste	Lower explosive limit	Not available
Colour	various	Upper explosive limit	Not available
Odour	typical	Vapour pressure	Not available
Odour threshold	Not available	Vapour density	Not available
pH	Not available	Relative density	1,33
Melting point / freezing point	Not available	Solubility	insoluble in water
Initial boiling point	Not available	Partition coefficient: n-octanol/water	Not available
Boiling range	Not available	Auto-ignition temperature	Not available
Flash point	Not available	Decomposition temperature	Not available
Evaporation rate	Not available	Viscosity	60000 - 135000 cps
Flammability (solid, gas)	not flammable	Explosive properties	Not available
Lower inflammability limit	Not available	Oxidising properties	Not available
Upper inflammability limit	Not available		

9.2. Other information

VOC (Directive 2010/75/CE)	6,90 % - 91,77 g/litre
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10. Stability and reactivity

10.1. Reactivity

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

ETHYL ACETATE - Decomposes slowly into acetic acid and ethanol under the effect of light, air and 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.

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.

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

10.5. Incompatible materials

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

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.

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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

Information not available

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

Information not available

Interactive effects

Information not available

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

TRIS(NONYLPHENYL)PHOSPHITE

> 15000 LD50 (Oral) mg/kg Rattus sp.

LD50 (Dermal) > 2000 mg/kg Oryctolagus sp.

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.

LD50 (Oral) > 10000 mg/kg Rattus sp.

LD50 (Dermal) > 9400 mg/kg Oryctolagus sp.

LC50 (Inhalation) 1,5 mg/l/4h Rattus sp.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

LD50 (Oral) > 2000 mg/kg Rattus sp.

LD50 (Dermal) > 9400 mg/kg Oryctolagus sp.

LC50 (Inhalation) 1,5 mg/l/4h Rattus sp.

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

LD50 (Oral) 3700 mg/kg Rattus sp.

LD50 (Dermal) > 3170 mg/kg Rattus sp.

LC50 (Inhalation) 0,5 mg/l Rattus sp.

REACTIVE MIXTURE OF ETHYLBENZENE, m-XYLENE AND p-XYLENE

LD50 (Oral) 5627 mg/kg Mus sp.

LD50 (Dermal) > 5000 mg/kg Oryctolagus sp.

LC50 (Inhalation) 6700 ppm/4h Rattus sp.

ETHYL ACETATE

LD50 (Oral) 5620 mg/kg Rattus sp.

LD50 (Dermal) > 20000 mg/kg Oryctolagus sp.

LC50 (Inhalation) 1600 mg/kg Oryctolagus sp.

XYLENE (BENZENE <0.01%)

LD50 (Oral) 5627 mg/kg Mus sp.

LD50 (Dermal) > 5000 mg/kg Oryctolagus sp.

LC50 (Inhalation) 6700 ppm/4h Rattus sp.

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SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the respiratory system

May produce an allergic reaction.

Contains:

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

12. Ecological information

12.1. Toxicity

TRIS(NONYLPHENYL)PHOSPHITE

LC50 - for Fish 7,1 mg/l/96h Danio rerio

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.

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

EC50 - for Algae / Aquatic Plants > 1640 mg/l/72h Scenedesmus subspicatus

Chronic NOEC for Crustacea > 10 mg/l Daphnia magna

DIPHENYLMETHANE-4,4'-DIISOCYANATE

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

EC50 - for Algae / Aquatic Plants > 1640 mg/l/72h Scenedesmus subspicatus

Chronic NOEC for Crustacea > 10 mg/l Daphnia magna

Chronic NOEC for Algae / Aquatic Plants 1640 mg/l Desmodesmus subspicatus

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

LC50 - for Fish 4,4 mg/l/96h Brachydanio rerio

EC50 - for Crustacea 0,57 mg/l/48h Daphnia sp.

EC50 - for Algae / Aquatic Plants 1,9 mg/l/72h Scenedesmus subspicatus

REACTIVE MIXTURE OF ETHYLBENZENE, m-XYLENE AND p-XYLENE

LC50 - for Fish 2,6 mg/l/96h Salmo gairdneri

EC10 for Algae / Aquatic Plants 1,9 mg/l/72h Selenastrum capricornutum

ETHYL ACETATE

LC50 - for Fish > 212 mg/l/96h

EC50 - for Crustacea 260 mg/l/48h Daphnia pulex

XYLENE (BENZENE <0.01%)

LC50 - for Fish 2,6 mg/l/96h Oncorhynchus mykiss

EC50 - for Algae / Aquatic Plants 4,36 mg/l/72h Pseudokirchneriella subcapitata

Chronic NOEC for Fish > 1,3 mg/l Oncorhynchus mykiss

Chronic NOEC for Crustacea 1,57 mg/l Daphnia magna

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12.2. Persistence and degradability

TRIS(NONYLPHENYL)PHOSPHITE

NOT rapidly degradable

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.

NOT rapidly degradable

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

NOT rapidly degradable

ETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

XYLENE (BENZENE <0.01%)

Rapidly degradable

12.3. Bioaccumulative potential

ETHYL ACETATE

Partition coefficient: n-octanol/water 0,68

BCF 30

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Information not available

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.

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**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

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15. Regulatory information

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

Seveso Category: Directive 2012/18/CE: 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 52 -> DIISONONYL PHTHALATE

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

Substances in Candidate List (Art. 59 REACH):

TRIS(NONYLPHENYL)PHOSPHITE Reg. no.: 01-2119520601-54-XXXX

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 been performed for the following contained substances

XYLENE (BENZENE <0.01%)

REACTIVE MIXTURE OF ETHYLBENZENE, m-XYLENE AND p-XYLENE

ETHYL ACETATE

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.

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

DIPHENYLMETHANE-4,4'-DIISOCYANATE

TRIS(NONYLPHENYL)PHOSPHITE

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16. Altre informazioni

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
Asp. Tox. 1	Aspiration hazard, category 1
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 2	Hazardous to the aquatic environment, chronic toxicity, category 2
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
H304	May be fatal if swallowed and enters airways
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	Molto tossico per gli organismi acquatici.
H410	Very toxic to aquatic life
H411	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

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Decodifica dei descrittori degli usi:

ERC	2	Formulation into mixture
ERC	5	Use at industrial site leading to inclusion into/onto article
ERC	8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
PC	1	Adhesives, sealants
PC	21	Laboratory chemicals
PROC	10	Roller application or brushing
PROC	15	Use as laboratory reagent
PROC	3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC	4	Chemical production where opportunity for exposure arises
PROC	5	Mixing or blending in batch processes
PROC	8a	Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC	8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC	9	Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
SU	10	Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU	17	General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU	19	Building and construction work

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).

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 - Patty - Industrial Hygiene and Toxicology
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 - 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.