1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1 Product identifier

Product name: Poliuplan LC

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

Intended use: One component polyurethane sealant/adhesive for various type of use.

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: SYSTEM TECHNOLOGY
Address: CORSO SIRACUSA, 160/C
Locality: 10137 TORINO
State: ITALIA

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:

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Respiratory sensitization, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.

2.2 Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements. Hazard pictograms:

Signal words: Hazard Danger

statements:

H351	Suspected of causing cancer.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May
H317	cause an allergic skin reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.

Precautionary statements:

P261 P280	Avoid breathing dust / fume / gas / mist / vapours / spray.
P342+P311	Wear protective gloves/ protective clothing / eye protection / face protection. If
P304+P340	experiencing respiratory symptoms: call a POISON CENTER / doctor / . . .
P201 P308	IF INHALED: remove person to fresh air and keep comfortable for breathing. Obtain
+P313	special instructions before use.
	IF exposed or concerned: Get medical advice / attention.

Contains: DIPHENYLMETHANE-4,4'-DIISOCYANATE
DIPHENYLMETHANE-2,4'-DIISOCYANATE
TRIISOBUTYL PHOSPHATE

2.3 Other hazards

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
HYDROCARBONS, C10-C13, n-ALKANES, <2% AROMATICS		
CAS 64771-72-8	8 ≤ x < 9	Asp. Tox. 1 H304, EUH066
EC 929-018-5		
INDEX		
Reg. no. 01-2119475608-26-xxxx DIISONONYL PHTHALATE		
CAS 28553-12-0	7 ≤ x < 8	
EC 249-079-5		
INDEX		
Reg. no. 01-2119430798-28		
N,N-DIBENZYLIDEN POLYOXYPROPYLENE DIAMINE. CAS 136855-71-5	3 ≤ x < 3,5	Skin Irrit. 2 H315
EC		
INDEX		
DIPHENYLMETHANE-4,4'-DIISOCYANATE		
CAS 101-68-8	1 ≤ x < 1,5	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/notes 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		

DIPHENYLMETHANE-2,4'-DIISOCYANATE
CAS 5873-54-1 0,89 ≤ 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,
Classification note/notes according to Annex VI to the CLP Regulation: 2, C
EC 227-534-9
INDEX 615-005-00-9
Reg. no. 01-2119480143-45-XXXX METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA) CAS 77703-56-1 0,6 ≤ x < 0,7
EC 416-600-4 Aquatic Chronic 4 H413
INDEX
Reg. no. 01-0000016345-72-0008 TRIISOBUTYL PHOSPHATE

CAS 126-71-6 0,354 ≤ x < 0,404 Skin Sens. 1B H317
EC 204-798-3
INDEX
Reg. no. 01-2119957118-32
DIPHENYLMETHANE-2,2'-DIISOCYANATE
CAS 2536-05-2 0 ≤ x < 0,05 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/notes according to Annex VI to the CLP Regulation: 2, C
EC 219-799-4
INDEX 615-005-00-9
Reg. no. 01-2119927323-43-XXXX

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. 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

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.

5.2 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.

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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

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. 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

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 LÍMITES DE
ESP	España	EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS ΕΦΗΜΕΡΙΔΑ
GRC	Ελλάδα	ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018
HUN	Magyarország	A pénzügyminiszter 7/2018. (VIII. 29.) PM rendelete a munkahelyek kémiai biztonságáról szóló 25/2000. (IX. 30.) EüM–SZCSM együ, TTes rendelet módosításáról.
HRV	Hrvatska	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 91/18)
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 ROZPORZĄDZENIE
POL	Polska	MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
SWE	Sverige	Hygieniska gränsvärden, AFS 2018:1
SVK	Slovensko	Nariadenie vlády č. 33/2018 Z. z. Nariadenie vlády Slovenskej republiky, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 355/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou chemickým faktorom pri práci v znení neskorších predpisov
GBR	United Kingdom TLV-ACGIH	EH40/2005 Workplace exposure limits (Third edition, published 2018) ACGIH 2020

DIISONONYL PHTHALATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	3	0,171	10	0,57	
TLV	DNK	3				
GVI/KGVI	HRV	5				
NGV/KGV	SWE	3		5 (C)		
WEL	GBR	5				

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
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		
AK	HUN	0,05		0,05		
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)	
NPEL	SVK	0,05		0,05		
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	
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	0,05	0,025 mg/m3	0,025	0,1 mg/m3		0,05 mg/m3	

DIPHENYLMETHANE-2,4'-DIISOCYANATE								
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	
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	0,05	0,025 mg/m3	0,025	0,1 mg/m3		0,05 mg/m3	

METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)								
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						76,36	mg/kg/d	
Normal value for marine water sediment						7,636	mg/kg/d	
Normal value for water, intermittent release						1	mg/l	
Normal value of STP microorganisms						10	mg/l	
Normal value for the food chain (secondary poisoning)						NEA		
Normal value for the terrestrial compartment						15,15	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		NPI		5 mg/kg bw/d				
Inhalation	NPI	NPI	NPI	7,4 mg/m3	NPI	NPI	NPI	49,37 mg/m3
Skin	NPI	NPI	NPI	50 mg/kg bw/d	NPI	NPI	NPI	140 mg/kg bw/d

TRIISOBUTYL PHOSPHATE		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,011	mg/l
Normal value in marine water	0,0011	mg/l
Normal value for fresh water sediment	1,58	mg/kg
Normal value for marine water sediment	0,158	mg/kg
Normal value for water, intermittent release	0,11	mg/l
Normal value of STP microorganisms	3,72	mg/l

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				2,13 mg/kg bw/d				
Inhalation				8,89 mg/m3				50 mg/m3
Skin				2,13 mg/kg bw/d				4,25 mg/kg bw/d

DIPHENYLMETHANE-2,2'-DIISOCYANATE		
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

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	0,05	0,025 mg/m3	0,025	0,1 mg/m3	0,1	0,05 mg/m3	0,05

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2 Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect 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 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.

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

Properties	Value	Information
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 applicable	
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	1,37-1,41	
Solubility	Not available	
Partition coefficient: n-octanol/water	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature Viscosity	Not available	
Explosive properties	4000 - 6000 cps	
Oxidising properties	Not available	
	Not available	

9.2 Other information

VOC (Directive 2010/75/EC) : 11,33 %

10. STABILITY AND REACTIVITY

10.1 Reactivity

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

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

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

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

ATE (Inhalation) of the mixture:	> 5 mg/l
ATE (Oral) of the mixture: ATE	Not classified (no significant component)
(Dermal) of the mixture:	Not classified (no significant component)

HYDROCARBONS, C10-C13, n-ALKANES, <2% AROMATICS LD50	
LD50(Oral)	> 2000 mg/kg Oryctolagus sp.
LD50 (Dermal)	> 2000 mg/kg Oryctolagus sp.
LC50 (Inhalation)	> 5 mg/l Rattus sp.
DIPHENYLMETHANE-2,2'-DIISOCYANATE	
LD50 (Oral)	> 2000 mg/kg Rattus sp.
LD50 (Dermal)	> 9400 mg/kg Oryctolagus sp.
LC50 (Inhalation)	1,5 mg/l/4h Rattus sp.
DIPHENYLMETHANE-2,4'-DIISOCYANATE	
LD50 (Oral)	> 2000 mg/kg Rattus sp.
LD50 (Dermal)	> 9400 mg/kg Oryctolagus sp.
LC50 (Inhalation)	1,5 mg/l/4h Rattus sp.
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.
METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)	
LD50(Oral)	> 2000 mg/kg Rattus sp.
LD50 (Dermal)	> 2000 mg/kg Rattus sp.
TRIISOBUTYL PHOSPHATE	
LD50 (Oral)	> 5000 mg/kg Rattus sp.
LD50 (Dermal)	> 5000 mg/kg Oryctolagus sp.
LC50 (Inhalation)	> 5,14 mg/l/4h Rattus sp.
DIISONONYL PHTHALATE	> 10000 mg/kg Rat - Sprague-Dawley
LD50 (Oral)	
LD50(Dermal)	> 3160 mg/kg Rabbit - New Zeland white
LC50(Inhalation)	> 4,4 mg/l Rat - Sprague-Dawley

SKIN CORROSION / IRRITATION

LD50 (Oral)	
LD50(Dermal)	> 3160 mg/kg Rabbit - New Zeland white
LC50(Inhalation)	> 4,4 mg/l Rat - Sprague-Dawley

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 skin
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

Suspected of causing cancer

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

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: 4000 - 6000 cps

12. Ecological information

12.1 Toxicity

DIPHENYLMETHANE-2,2'-DIISOCYANATE LC 50 - for Fish	> 1 000 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants	> 1640 mg/l/72h Scenedesmus subspicatus
Chronic NOEC for Crustacea	> 1 0 mg/l Daphnia magna
DIPHENYLMETHANE-2,4'-DIISOCYANATE LC 50 - for Fish	> 1 000 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants	> 1640 mg/l/72h Scenedesmus subspicatus
Chronic NOEC for Crustacea	> 1 0 mg/l Daphnia magna
DIPHENYLMETHANE-4,4'-DIISOCYANATE LC 50 - for Fish	> 1 000 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants	> 1640 mg/l/72h Scenedesmus subspicatus
Chronic NOEC for Crustacea	> 1 0 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	> 1640 mg/l Desmodesmus subspicatus
METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA) LC 50 - for Fish	>250 mg/l/96h Danio rerio
EC 50 - for Crustacea	>100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	>100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	250 mg/lDanio rerio
Chronic NOEC for Crustacea	1 00 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	100 mg/l Desmodesmus subspicatus
TRIISOBUTYL PHOSPHATE EC 50 - for Crustacea	1 1 mg/l/48h Daphnia magna
DIISONONYL PHTHALATE LC 50 - for Fish	> 1 02 mg/l/96h Danio rerio
EC 50 - for Crustacea	> 74 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 88 mg/l/72h Scenedesmus subspicatus

12.2 Persistence and degradability

METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA) Solubility in water	0,05 mg/l
NOT rapidly degradable	
TRIISOBUTYL PHOSPHATE Rapidly degradable	
DIISONONYL PHTHALATE Solubility in water Rapidly degradable	< 0,1 mg/l

12.3 Bioaccumulative potential

DIPHENYLMETHANE-2,2'-DIISOCYANATE BCF	200 C yprinus carpio
DIPHENYLMETHANE-2,4'-DIISOCYANATE BCF	200 C yprinus carpio

METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)
Partition coefficient: n-octanol/water 5,5
BC F < 2000 l/kg

DIISONONYL PHTHALATE
Partition coefficient: n-octanol/water BC F 8,8

12.4 Mobility in soil

METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)
Partition coefficient: soil/water > 3

DIISONONYL PHTHALATE
Partition coefficient: soil/water 5,25

12.5 Results of PBT and vPvB assessment 6

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ 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.

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

15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

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

Product		
Point	3	
Contained substance		
Point	52	DIISONONYL PHTHALATE Reg. no.: 01-2119430798-28
Point	56	DIPHENYLMETHANE-4,4'-DIISOCYANATE Reg. no.: 01-2119457014-47-XXXX
Point	56	DIPHENYLMETHANE-2,4'-DIISOCYANATE Reg. no.: 01-2119480143-45-XXXX

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

15.1 Other information

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

Carc. 2 Acute	Carcinogenicity, category 2
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 Irrit. 2	Eye irritation, category 2
Skin Irrit. 2 STOT SE	Skin irritation, category 2
3 Resp. Sens. 1 Skin	Specific target organ toxicity - single exposure, category 3
Sens. 1 Skin Sens.	Respiratory sensitization, category 1
1B Aquatic Chronic	Skin sensitization, category 1
4 H351	Skin sensitization, category 1B Hazardous to the aquatic environment, chronic toxicity, category 4 Suspected of causing cancer.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

Use descriptor system:

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) Formulation [mixing]
SU 10	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

16. Other information

- IC50: Immobilization Concentration 50% - IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current hea and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.
Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 08 / 09 / 11 / 12 / 15 / 16.

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