

Safety Data Sheet

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

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

1.1. Product identifier

Product name ARS Color PU 05 Polyurethane Sealant

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

Intended use One-component polyurethane adhesive/sealant for general purpose bonding.

Identified Uses	Industrial	Professional	Consumer
SEALANTS AND ADHESIVES FORMULATIONS			
IN INDUSTRY	✓	-	-
INDUSTRIAL APPLICATIONS OF SEALANTS			
AND ADHESIVES	✓	✓	-
CHEMICAL SUBSTANCE USE IN			
LABORATORY, INDUSTRIAL	✓	-	-

1.3. Details of the supplier of the safety data sheet

Name UAB HELVINA
Full address Parko str. 96, Ramuciai
District and Country LT54464 Kaunas district Lithuania
Tel. +370 37 308901
Fax +370 37 308902

e-mail address of the competent person
responsible for the Safety Data Sheet info@helvina.lt

1.4. Emergency telephone number

For urgent inquiries refer to: Poison control and information office:
+370 5 236 2052 or +370 687 533 78

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

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:

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H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Precautionary statements:

P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
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.

Contains: DIPHENYLMETHANE-4,4'-DIISOCYANATE

As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter \leq 10 μm]		
INDEX 022-006-00-2	$4,5 \leq x < 5$	Carc. 2 H351, Classification note according to Annex VI to the CLP Regulation: 10, V, W
EC 236-675-5		
CAS 13463-67-7		
HYDROCARBONS, C10-C13, n-ALKANES, <2% AROMATICS		
INDEX	$2 \leq x < 2,5$	Asp. Tox. 1 H304, EUH066
EC 929-018-5		
CAS 64771-72-8		
REACH Reg. 01-2119475608-26-xxxx		
DIISONONYL PHTHALATE		
INDEX	$1 \leq x < 1,5$	
EC 249-079-5		
CAS 28553-12-0		
REACH Reg. 01-2119430798-28		
METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)		
INDEX	$1 \leq x < 1,5$	Aquatic Chronic 4 H413
EC 416-600-4		
CAS 77703-56-1		
REACH Reg. 01-0000016345-72-0008		
CARBON BLACK.		
INDEX	$1 \leq x < 1,5$	
EC 215-609-9		
CAS 1333-86-4		
REACH Reg. 01-2119384822-32		
DIPHENYLMETHANE-4,4'-DIISOCYANATE		
INDEX 615-005-00-9	$0,89 \leq x < 1$	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, Classification note according to Annex VI to the CLP Regulation: 2, C Skin Irrit. 2 H315: \geq 5%, Eye Irrit. 2 H319: \geq 5%, Resp. Sens. 1 H334: \geq 0,1%, STOT SE 3 H335: \geq 5% LC50 Inhalation mists/powders: 1,5 mg/l/4h
EC 202-966-0		
CAS 101-68-8		
REACH Reg. 01-2119457014-47		
3-GLYCIDYLOXYPROPYLTRIMETHOXYSILANE.		
INDEX	$0,3 \leq x < 0,35$	Eye Dam. 1 H318
EC 219-784-2		
CAS 2530-83-8		
REACH Reg. 01-2119513212-58-0002		

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

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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.

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SECTION 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

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	Nařízení vlády č. 41/2020 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	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
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 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÄRDSMINISTERIETS PUBLIKATIONER 2020:25
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α' 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ "σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία"»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénym a mutagénym faktorom pri práci v znení neskorších predpisov
GBR	United Kingdom TLV-ACGIH	EH40/2005 Workplace exposure limits (Fourth Edition 2020) ACGIH 2022

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Normal value in fresh water		1	mg/l	
Normal value in marine water		0,1	mg/l	
Normal value for fresh water sediment		0,79	mg/kg	
Normal value for water, intermittent release		1	mg/l	
Normal value for the terrestrial compartment		0,13	mg/kg	
Inhalation	VND	147 mg/m3	VND	147 mg/m3
Skin	VND	21 mg/kg	VND	21 mg/kg

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Threshold Limit Value						Remarks / Observations
Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	
TLV	CZE	2				
MAK	DEU	4				INHAL
MAK	DEU	1,5				RESP
VLA	ESP	3,5				
VLEP	FRA	3,5				INHAL
HTP	FIN	3,5		7		
VLEP	ITA	3				INHAL
TLV	NOR	3,5				
NGV/KGV	SWE	3				
WEL	GBR	3,5		7		INHAL

DIPHENYLMETHANE-4,4'-DIISOCYANATE

Threshold Limit Value						Remarks / Observations
Type	Country	TWA/8h mg/m3	ppm	STEL/15min 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

Related to effect concentration: EC50					
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					

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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

Oral	NPI	5	mg/kg bw/d				
Inhalation	NPI	NPI	NPI	7,4	NPI	NPI	49,37
				mg/m3			mg/m3
Skin	NPI	NPI	NPI	50	NPI	NPI	140
				mg/kg bw/d			mg/kg bw/d

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	10				RESP
TLV	DNK	6				Som Ti
VLA	ESP	10				
VLEP	FRA	10				
TLV	GRC		10			
GVI/KGVI	HRV	10				INHAL
GVI/KGVI	HRV	4				RESP
TLV	NOR	5				
NDS/NDSch	POL	10				INHAL
TLV	ROU	10		15		
NGV/KGV	SWE	5				Totaldamm
NPEL	SVK	5				
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		0,2				RESP

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			

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

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

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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.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	paste	
Color	various	
Odour	typical	
Melting point / freezing point	not applicable	Reason for missing data:Determination is not technically possible.
Initial boiling point	not applicable	Reason for missing data:Determination is not technically possible.
Boiling range	not applicable	Reason for missing data:Determination is not technically possible.
Flammability	not flammable	Method:A10 regulation EC 440/2008
Lower explosive limit	not applicable	
Upper explosive limit	not applicable	
Flash point	not applicable	
Auto-ignition temperature	not available	
Decomposition temperature	not applicable	
pH	not applicable	Reason for missing data:Insoluble in water.
Kinematic viscosity	not available	
Dynamic viscosity	110000-165000 cps	Method:UNI EN ISO 3219 - Rotational viscometer
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not applicable	
Vapour pressure	not available	
Density and/or relative density	1,34-1,40	Method:ISO 1183-1 A
Relative vapour density	not applicable	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Evaporation rate	not applicable	
VOC (Directive 2010/75/EU)	2,00 % - 27,20	g/litre
Explosive properties	not applicable	

SECTION 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

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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.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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

3-GLYCIDYLOXYPROPYLTRIMETHOXYSILANE.

LD50 (Dermal):	4250 mg/kg <i>Oryctolagus</i> sp.
LD50 (Oral):	8025 mg/kg <i>Rattus</i> sp.
LC50 (Inhalation vapours):	5,3 mg/l <i>Rattus</i> sp.

HYDROCARBONS, C10-C13, n-ALKANES, <2% AROMATICS

LD50 (Dermal):	> 2000 mg/kg <i>Oryctolagus</i> sp.
LD50 (Oral):	> 2000 mg/kg <i>Rattus</i> sp.
LC50 (Inhalation vapours):	> 5 mg/l <i>Rattus</i> sp.

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LD50 (Dermal):	> 3000 mg/kg <i>Oryctolagus</i> sp.
LD50 (Oral):	> 8000 mg/kg <i>Rattus</i> sp.
LC50 (Inhalation mists/powders):	> 27 mg/l/1h <i>Rattus</i> sp.

DIPHENYLMETHANE-4,4'-DIISOCYANATE

LD50 (Dermal):	> 9400 mg/kg <i>Oryctolagus</i> sp.
LD50 (Oral):	> 2000 mg/kg <i>Rattus</i> sp.
LC50 (Inhalation mists/powders):	1,5 mg/l/4h <i>Rattus</i> sp.

METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)

LD50 (Dermal):	> 2000 mg/kg <i>Rattus</i> sp.
LD50 (Oral):	> 2000 mg/kg <i>Rattus</i> sp.

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TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]
LD50 (Oral): > 10000 mg/kg Rat

DIISONONYL PHTHALATE
LD50 (Dermal): > 3160 mg/kg Rabbit - New Zeland white
LD50 (Oral): > 10000 mg/kg Rat - Sprague-Dawley
LC50 (Inhalation vapours): > 4,4 mg/l/4h 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 respiratory system

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]
The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1% or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$.

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

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

3-GLYCIDYLOXYPROPYLTRIMETHOXYSILANE.
LC50 - for Fish 55 mg/l/96h Cyprinus carpio
EC50 - for Crustacea 324 mg/l/48h Daphnia magna
Chronic NOEC for Algae / Aquatic Plants < 50 mg/l Anabaena sp.

CARBON BLACK.
LC50 - for Fish > 1000 mg/l/96h Brachydanio rerio
EC50 - for Algae / Aquatic Plants > 10000 mg/l/72h Scenedesmus subspicatus

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

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METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)
LC50 - for Fish > 250 mg/l/96h Danio rerio
EC50 - 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/l Danio rerio
Chronic NOEC for Crustacea 100 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants 100 mg/l Desmodesmus subspicatus

DIISONONYL PHTHALATE
LC50 - for Fish > 102 mg/l/96h Danio rerio
EC50 - for Crustacea > 74 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants > 88 mg/l/72h Scenedesmus subspicatus

12.2. Persistence and degradability

3-GLYCIDYLOXYPROPYLTRIMETHOXYSILANE.
NOT rapidly degradable

METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)
Solubility in water 0,05 mg/l
NOT rapidly degradable

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]
Solubility in water < 0,001 mg/l
Degradability: information not available

DIISONONYL PHTHALATE
Solubility in water < 0,1 mg/l
Rapidly degradable

12.3. Bioaccumulative potential

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

DIISONONYL PHTHALATE
Partition coefficient: n-octanol/water 8,8
BCF > 3

12.4. Mobility in soil

METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)
Partition coefficient: soil/water 5,25

DIISONONYL PHTHALATE
Partition coefficient: soil/water 6

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 \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

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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.

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 or ID 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. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

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

Product

Point 3

Contained substance

Point 75

Point 56 DIPHENYLMETHANE-4,4'-DIISOCYANATE

REACH Reg.: 01-2119457014-47

Point 52 DIISONONYL PHTHALATE

REACH Reg.: 01-2119430798-28

Point 74 DIISOCYANATES

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

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SECTION 15. Regulatory information ... / >>

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

DIPHENYLMETHANE-4,4'-DIISOCYANATE

METHYLENE-BIS-4,1-(N-PHENYLENE-N'-BUTYLUREA)

SECTION 16. Other information

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

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 Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H351	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.
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.
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.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation

SECTION 16. Other information ... / >>

- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative 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) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- 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

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.

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.