

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

1.1. Product identifier

Product form : Mixture
Product name : Pigment PA

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

Relevant identified uses

Main use category : Professional use

1.3. Details of the supplier of the safety data sheet

Quartzline B.V.
W.A. Boogaertstraat 5
NL 3316 BN Dordrecht
Nederland
T +31 (0)78 6513100, F +31 (0)78 6177390
info@quartzline.nl, www.quartzline.nl

1.4. Emergency telephone number

Emergency number : +31 (0)78 6513100
This number is serviced during office hours.

Country/Area	Organisation/Company	Address	Emergency number	Comment
Austria	Vergiftungsinformationszentrale	Stubenring 6 1010 Vienna	+43 1 406 43 43	
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Militaire Reine Astrid	Rue Bruyn 1 1120 Brussels	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Bulgaria	Национален токсикологичен информационен център Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов"	бул. Ген. Едуард И. Тотлебен 21 1606 Sofia	+359 2 9154 233	The phone is active 24/7 and calls to it are free
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	Information available 24/7 in Croatian and English
Cyprus	Κέντρον Δηλητηριάσεων Τμήμα Επιθεώρησης Εργασίας	P.O. Box 24855 Nicosia	1401	Operating hours 24 hours / 24 hours, 7 days a week

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Country/Area	Organisation/Company	Address	Emergency number	Comment
Czech Republic	Toxikologické informační středisko Klinika pracovního lékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Prague	+420 224 919 293 +420 224 915 402	and only in the event of a malfunction, phone 725 103 658 (otherwise there may not be a toxicologist on this phone!) Questions about ACUTE INTOXICATION of people and animals are dealt with exclusively on TIS direct telephone lines 24 hours a day
Denmark	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23E Opgang 20 C 2400 Copenhagen	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus Terviseamet	Paldiski mnt 81 10614 Tallinn	16662 +372 7943 794	Calling the hotline is anonymous and at the cost of a local call.
Finland	Myrkytystietokeskus	Stenbäckinkatu 9 PO BOX 100 00029 Helsinki	+358 800 147 111 +358 9 471 977	Open 24 hours a day 0800 147 111 (free of charge) 09 471 977 (normal rate call)
France	ORFILA		+33 1 45 42 59 59	This number automatically directs calls to the nearest poison control center, based on the caller's location. These poison and toxicovigilance centers provide free medical assistance (excluding call costs), 24 hours a day, 7 days a week.
France	Centre antipoison de Marseille Hôpital Sainte Marguerite	270 boulevard de Sainte Marguerite 13274 Marseille Cedex 09	+33 4 91 75 25 25	
France	Centre antipoison de Paris Hôpital Fernand Widal	200 rue du Faubourg Saint-Denis 75475 Paris Cedex 10	+33 1 40 05 48 48	

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Country/Area	Organisation/Company	Address	Emergency number	Comment
Germany	Informationszentrale gegen Vergiftungen Klinik und Poliklinik für Allgemeine Pädiatrie, Zentrum für Kinderheilkunde, Universitätsklinikum Bonn	Gebäude 30, ELKI (Eltern-Kind-Zentrum) Venusberg-Campus 1 53127 Bonn	+49 (0) 228 19240	
Germany	Vergiftungs-Informations-Zentrale Universitätsklinikum Freiburg, Zentrum für Kinder- und Jugendmedizin	Breisacher Str. 86b 79110 Freiburg	+49 (0) 761 19240	
Germany	Giftinformationszentrum-Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein (GIZ-Nord) Universitätsmedizin Göttingen - Georg-August-Universität	Robert-Koch Straße 40 37075 Göttingen	+49 (0) 551 19240	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 21 07 79 37 77	
Hungary	Nemzeti Népegészségügyi Központ Egészségügyi Toxikológiai Tájékoztató Szolgálat	Albert Flórián út 2-6 1097 Budapest	+36 80 20 11 99 +36 1 476 6464	Emergency number 1: (0-24 hours, free of charge - only from Hungary) Emergency number 2: (0-24 hours, can be called for a normal fee - also from abroad)
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Italy	Centro Antiveleni di Bergamo Azienda Ospedaliera Papa Giovanni XXII	Piazza OMS - Organizzazione Mondiale della Sanità, 1 24127 Bergamo	800 88 33 00	
Italy	Centro Antiveleni di Milano Ospedale Niguarda Ca' Granda	Piazza Ospedale Maggiore 3 20162 Milan	02 6610 1029	
Italy	Centro Antiveleni di Roma CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Università Cattolica del Sacro Cuore	Largo Agostino Gemelli, 8 00168 Rome	06 305 4343	
Italy	Centro Antiveleni di Firenze Az. Osp. "Careggi" U.O. Tossicologia Medica, S.O.D. di Tossicologia Clinica	Largo Brambilla, 3 50134 Florence	055 794 7819	
Italy	Centro Antiveleni di Pavia CAV Centro Nazionale di Informazione Tossicologica, Istituti Clinici Scientifici Maugeri Spa	Via Salvatore Maugeri, 10 27100 Pavia	03 822 4444	

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Country/Area	Organisation/Company	Address	Emergency number	Comment
Italy	Centro Antiveneni di Foggia Az. Osp. Univ. Foggia	V.le Luigi Pinto, 1 71122 Foggia	800 183 459	
Italy	Centro Antiveneni di Napoli Az. Osp. "A. Cardarelli"	Via A. Cardarelli, 9 80131 Naples	081 54 53 333	
Italy	Centro Antiveneni di Verona Azienda Ospedaliera Integrata Verona	Piazzale Aristide Stefani, 1 37126 Verona	800 011 858	
Latvia	Valsts ugunsdzēsības un glābšanas dienests Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs	Hipokrāta 2 1038 Riga	112 +371 67 04 24 73	works 24 hours a day
Lithuania	Apsinuodijimų informacijos biuras	Šiltanamių g. 29 04130 Vilnius	+370 (5) 236 20 52	
Luxembourg	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Militaire Reine Astrid	Rue Bruyn 1 1120 Brussels	+352 8002 5500	Free telephone number with a 24/7 access. Experts answer all urgency questions on dangerous products in French, Dutch and English
Malta	Medicines & Poisons Info Office	Mater Dei Hospital Msida MSD 2090 Msida	112 +356 2545 6508	
Netherlands	Nationaal Vergiftigingen Informatie Centrum (NVIC)	Huispostnummer Q03.2.315 Postbus 85500 3508 GA Utrecht	+31 88 755 80 00	Only for the purpose of informing medical personnel in cases of acute intoxications (24 hours a day, 7 days a week)
Poland	Instytut Medycyny Pracy imienia prof. dra med. Jerzego Nofera	ul. św. Teresy od Dzieciątka Jezus 8 91-348 Łódź	+48 42 631 45 02 +48 42 655 25 05	
Portugal	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica	Rua Almirante Barroso, 36 1000-013 Lisbon	+351 800 250 250	
Romania	Spitalul Clinic de Urgenta Bucuresti Secția Clinică ATI II - Toxicologie Clinică	Calea Floreasca nr. 8 sector 1 Bucharest	+40 21 599 23 00	(information provided in Romanian and English)
Slovakia	Národné toxikologické informačné centrum Univerzitná nemocnica Bratislava, pracovisko Kramáre, Klinika pracovného lekárstva a toxikológie	Limbová 5 833 05 Bratislava	+421 2 54 77 41 66 +421 911 166 066	

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Country/Area	Organisation/Company	Address	Emergency number	Comment
Slovenia	Center za klinično toksikologijo in farmakologijo Univerzitetni klinični, Center Ljubljana	Zaloška 7 1000 Ljubljana	112	
Spain	Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses, Departamento de Madrid	C/José Echegaray nº4 28232 Las Rozas de Madrid	+34 91 562 04 20 +34 91 411 26 76 (teléfono solo para médicos)	(Toxicological emergencies only). Information in Spanish (24/7)
Sweden	Giftinformationscentralen	Solna Strandväg 21 171 54 Solna	112 – begär Giftinformation	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1 H317

Hazardous to the aquatic environment – Chronic H412

Hazard, Category 3

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

: Warning

Contains

: FORMYL MORPHOLINE; tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate

Hazard statements (CLP)

: H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P261 - Avoid breathing vapours, mist, spray.
P280 - Wear protective gloves.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements

: EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
diiron trioxide substance with national workplace exposure limit(s) (BE, BG, DK, EE, FI, FR, GR, HU, HR, LT, AT, PL, PT, RO, SK, ES, SE)	CAS-No.: 1309-37-1 EC-No.: 215-168-2 REACH-no: 01- 2119457614-35	0 – 50	Not classified
Carbon black substance with national workplace exposure limit(s) (BE, DK, FI, FR, GR, HU, IE, HR, PL, PT, ES, CZ)	CAS-No.: 1333-86-4 EC-No.: 215-609-9 REACH-no: 01- 2119384822-32	0 – 50	Not classified
29H,31H-phthalocyaninato(2-)- N29,N30,N31,N32 copper substance with national workplace exposure limit(s) (LV, LT)	CAS-No.: 147-14-8 EC-No.: 205-685-1 REACH-no: 01- 2119458771-32	0 – 50	Not classified
Titanium dioxide substance with national workplace exposure limit(s) (BE, BG, DK, EE, FR, GR, IE, HR, LV, LT, AT, PL, PT, RO, SK, ES, SE) (Note V)(Note W)(Note 10)	CAS-No.: 13463-67-7 EC-No.: 236-675-5 EC Index-No.: 022-006- 00-2	0 – 50	Carc. 2, H351
tetraethyl N, N'-(methylenedicyclohexane-4,1- diyl)bis-DL-aspartate	CAS-No.: 136210-30-5 EC-No.: 429-270-1 EC Index-No.: 607-521- 00-8 REACH-no: 01- 0000017556-64	40 – 50	Skin Sens. 1, H317 Aquatic Chronic 3, H412
4-morpholinecarbaldehyde	CAS-No.: 4394-85-8 EC-No.: 224-518-3 REACH-no: 01- 2119987993-12	0.25 – 0.5	Skin Sens. 1B, H317
Propylidynetrimethanol substance with national workplace exposure limit(s) (LT, SE)	CAS-No.: 77-99-6 EC-No.: 201-074-9 REACH-no: 01- 2119486799-10	< 0.5	Repr. 2, H361fd

Note 10: 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 $\leq 10 \mu\text{m}$.

Note W: It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung. This note aims to describe the particular toxicity of the substance; it does not constitute a criterion for classification according to this Regulation.

Note V: If the substance is to be placed on the market as fibres (with diameter $< 3 \mu\text{m}$, length $> 5 \mu\text{m}$ and aspect ratio $\geq 3:1$) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied.

Full text of H- and EUH-statements: see section 16

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Components - Nanoform

Titanium dioxide (13463-67-7)	
Name of (set of) nanoform(s)	titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Do not induce vomiting without medical advice. Loosen tight clothing such as a collar, tie, belt or waistband. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects after skin contact	: May cause an allergic skin reaction.
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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: If there is a fire close by, use suitable extinguishing agents.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Presents no particular fire or explosion hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Absorb spillage to prevent material damage.
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For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing vapours, mist, spray.

For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing vapours, mist, spray. Wear personal protective equipment.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.
- Heat and ignition sources : Keep away from heat and direct sunlight.
- Packaging materials : Store always product in container of same material as original container.

Germany

Storage class (LGK, TRGS 510) : LGK 12 - Non-combustible liquids

Joint storage table	:	LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
		LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
		LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
		LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
		LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

- Joint storage not permitted for : LGK 1, LGK 6.2, LGK 7
- Joint storage with restrictions permitted for : LGK 4.1A, LGK 4.3, LGK 5.1C
- Joint storage permitted for : LGK 2A, LGK 2B, LGK 3, LGK 4.1B, LGK 4.2, LGK 5.1A, LGK 5.1B, LGK 5.2, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

diiron trioxide (1309-37-1)	
Austria - Occupational Exposure Limits	
Local name	Eisenoxide
MAK (OEL TWA)	5 mg/m ³ (A) 10 mg/m ³ (E)
MAK (OEL STEL)	10 mg/m ³ (A, 2x 60(Miw) min) 20 mg/m ³ (E, 2x 60(Miw) min)
Regulatory reference	BGBI. II Nr. 156/2021

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diiron trioxide (1309-37-1)	
Belgium - Occupational Exposure Limits	
Local name	Fer (trioxyde de) (fraction alvéolaire) # IJzeroxide (Fe2O3) (inadembare fractie)
OEL TWA	5 mg/m³
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023
Bulgaria - Occupational Exposure Limits	
Local name	Желязооксиди
OEL TWA	5 mg/m³ (като желязо)
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 28 от 2024 г., в сила от 05.04.2024 г.)
Croatia - Occupational Exposure Limits	
Local name	Željezov (III) oksid
GVI (OEL TWA)	5 mg/m³ dim (kao Fe) 10 mg/m³ prašina, U (ukupna prašina) 4 mg/m³ prašina, R (respirabilna prašina)
KGVI (OEL STEL)	10 mg/m³ dim (kao Fe)
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 148/2023)
Denmark - Occupational Exposure Limits	
Local name	Jernoxid
OEL TWA	3.5 mg/m³ beregnet som Fe
Regulatory reference	BEK nr 1619 af 19/12/2024
Estonia - Occupational Exposure Limits	
Local name	Raudoksiid (arvutatud rauale)
OEL TWA	3.5 mg/m³ Respireeritav fraktsioon
Remark	1 (Peentolm koosneb alla 2,5-mikromeetrise läbimõõduga osakestest, mis võivad koos sissehingatava õhuga jõuda kopsualveoolidesse)
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 02.04.2024, 13)
Finland - Occupational Exposure Limits	
Local name	Rautaoksidi, huurut
HTP (OEL TWA)	5 mg/m³ Fe
Regulatory reference	HTP-ARVOT 2025 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Fer (Trioxyde de di-, fumées), en Fe
VME (OEL TWA)	5 mg/m³
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 6443, 2022; Outil65)

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diiron trioxide (1309-37-1)	
Greece - Occupational Exposure Limits	
Local name	Σιδήρου (III) οξείδιο ως Fe
OEL TWA	10 mg/m³
OEL STEL	10 mg/m³
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Hungary - Occupational Exposure Limits	
Local name	VAS(III)-OXID (Fe-ra számítva)
AK (OEL TWA)	4 mg/m³ respirábilis frakció
Remark	T (Azok az anyagok, amelyek egészségkárosító hatása TARTÓS expozíciót követően jelentkezik)
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
Lithuania - Occupational Exposure Limits	
Local name	Geležies oksidas
IPRV (OEL TWA)	3.5 mg/m³ (kaip Fe); alveolinė frakcija
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Poland - Occupational Exposure Limits	
Local name	Tlenek żelaza(III)
NDS (OEL TWA)	5 mg/m³ w przeliczeniu na Fe – frakcja wdychalna 2.5 mg/m³ w przeliczeniu na Fe – frakcja respirabilna
NDSch (OEL STEL)	10 mg/m³ w przeliczeniu na Fe – frakcja wdychalna 5 mg/m³ w przeliczeniu na Fe – frakcja respirabilna
Remark	Frakcja wdychalna – frakcja aerozolu wnikaćca przez nos i usta, która stwarza zagrożenie dla zdrowia po zdeponowaniu w drogach oddechowych. Frakcja respirabilna – frakcja aerozolu wnikaćca do dróg oddechowych, która stwarza zagrożenie dla zdrowia po zdeponowaniu w obszarze wymiany gazowej.
Regulatory reference	Dz. U. 2024 poz. 1017 wraz z późn. zm.
Portugal - Occupational Exposure Limits	
Local name	Óxido de ferro
OEL TWA	5 mg/m³ R (Fração respirável)
Remark	A4 (Agente não classificável como carcinogénico no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Oxid feric
OEL TWA	5 mg/m³ (Fumuri, pulberi)
OEL STEL	10 mg/m³ (Fumuri, pulberi)
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 179/2024)
Slovakia - Occupational Exposure Limits	
Local name	Oxidy železa, dymy (ako Fe)

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diiron trioxide (1309-37-1)	
NPHV (OEL TWA)	1.5 mg/m³ respirabilná frakcia 4 mg/m³ inhalovateľná frakcia
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (122/2024 Z. z.)
Spain - Occupational Exposure Limits	
Local name	Óxido de hierro (III)
VLA-ED (OEL TWA)	5 mg/m³ polvo y humos, como Fe
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2025. INSHT
Sweden - Occupational Exposure Limits	
Local name	Järnoxid
NGV (OEL TWA)	3.5 mg/m³ (respirabel fraktion som Fe)
Remark	25 (Med inhalerbar och respirabel fraktion menas de dammfractioner som definieras i svensk standard SS-EN 481, Arbetsplatsluft – Partikelstorleksfraktioner för mätning av luftburna partiklar (utgåva 1, 1993). Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i en totaldammprovtagare)
Regulatory reference	Arbetsmiljöverkets föreskrifter och allmänna råd (AFS 2023:14) om gränsvärden för luftvägsexponering i arbetsmiljön
Carbon black (1333-86-4)	
Belgium - Occupational Exposure Limits	
Local name	Carbone (noir de) # Koolzwart
OEL TWA	3 mg/m³
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023
Croatia - Occupational Exposure Limits	
Local name	Ugljik-crni
GVI (OEL TWA)	3.5 mg/m³
KGVI (OEL STEL)	7 mg/m³
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 148/2023)
Czech Republic - Occupational Exposure Limits	
Local name	Amorfní uhlík (Carbon Black)
PEL (OEL TWA)	10 mg/m³ (pro celkovou koncentraci)
Remark	Prachy s převážně nespecifickým účinkem.
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (Předpis 330/2023 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Carbon black
OEL TWA	3.5 mg/m³
Remark	K (betyder, at stoffet anses for at kunne være kræftfremkaldende og omfattet af bekendtgørelse om foranstaltninger til forebyggelse af risici ved arbejde med stoffer og materialer, der kan være kræftfremkaldende, mutagene eller reproduktionstoksiske)

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Carbon black (1333-86-4)	
Regulatory reference	BEK nr 1619 af 19/12/2024
Finland - Occupational Exposure Limits	
Local name	Nokimusta
HTP (OEL TWA)	3.5 mg/m³
HTP (OEL STEL)	7 mg/m³
Regulatory reference	HTP-ARVOT 2025 (Sosiaali- ja terveystieteiden ministeriö)
France - Occupational Exposure Limits	
Local name	Noir de carbone
VME (OEL TWA)	3.5 mg/m³
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 6443, 2022; Outil65)
Greece - Occupational Exposure Limits	
Local name	Αιθάλη
OEL TWA	3.5 mg/m³
OEL STEL	7 mg/m³
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Hungary - Occupational Exposure Limits	
Local name	Ipari korom [„Carbon Black”]
AK (OEL TWA)	3 mg/m³ belélegezhető koncentráció
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
Ireland - Occupational Exposure Limits	
Local name	Carbon black
OEL TWA	3 mg/m³ I (Inhalable Fraction)
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2024
Poland - Occupational Exposure Limits	
Local name	Sadza techniczna
NDS (OEL TWA)	4 mg/m³ frakcja wdychalna
Remark	Frakcja wdychalna – frakcja aerozolu wnikaćca przez nos i usta, która stwarza zagrożenie dla zdrowia po zdeponowaniu w drogach oddechowych.
Regulatory reference	Dz. U. 2024 poz. 1017 wraz z późn. zm.
Portugal - Occupational Exposure Limits	
Local name	Carbono, preto (Negro de fumo)
OEL TWA	3 mg/m³ I (Fração inalável)
Remark	A3 (Agente carcinogénico confirmado nos animais de laboratorio con relevância desconhecida no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014

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Carbon black (1333-86-4)	
Spain - Occupational Exposure Limits	
Local name	Negro de humo
VLA-ED (OEL TWA)	3.5 mg/m³
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2025. INSHT
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper (147-14-8)	
Latvia - Occupational Exposure Limits	
Local name	Vara ftalocianīns
OEL TWA	5 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2024. gada 26. martā noteikumiem Nr. 191).
Lithuania - Occupational Exposure Limits	
Local name	Vario ftalocianinas
IPRV (OEL TWA)	5 mg/m³
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Titanium dioxide (13463-67-7)	
Austria - Occupational Exposure Limits	
Local name	Titandioxid (Alveolarstaub)
MAK (OEL TWA)	5 mg/m³ (A)
MAK (OEL STEL)	10 mg/m³ (A, 2x 60(Miw) min)
Regulatory reference	BGBl. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Titane (dioxyde de) # Titaandioxide
OEL TWA	10 mg/m³
Remark	(dioxyde de)
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023
Bulgaria - Occupational Exposure Limits	
Local name	Титанов диоксид
OEL TWA	10 mg/m³ (респирабилен прах)
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 28 от 2024 г., в сила от 05.04.2024 г.)
Croatia - Occupational Exposure Limits	
Local name	Titanov dioksid
GVI (OEL TWA)	10 mg/m³ U (ukupna prašina) 4 mg/m³ R (respirabilna prašina)
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 148/2023)

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Titanium dioxide (13463-67-7)	
Denmark - Occupational Exposure Limits	
Local name	Titandioxid
OEL TWA	6 mg/m³ beregnet som Ti
OEL STEL	12 mg/m³
Remark	K (betyder, at stoffet anses for at kunne være kræftfremkaldende og omfattet af bekendtgørelse om foranstaltninger til forebyggelse af risici ved arbejde med stoffer og materialer, der kan være kræftfremkaldende, mutagene eller reproduktionstoksiske)
Regulatory reference	BEK nr 1619 af 19/12/2024
Estonia - Occupational Exposure Limits	
Local name	Titaanoksiid
OEL TWA	5 mg/m³
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 02.04.2024, 13)
France - Occupational Exposure Limits	
Local name	Titane (dioxyde de), en Ti (Dioxyde de titane)
VME (OEL TWA)	10 mg/m³
Remark	Valeurs recommandées/admises. Cancérogène de catégorie 2
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 6443, 2022; Outil65)
Greece - Occupational Exposure Limits	
Local name	Τιτανίου διοξείδιο
OEL TWA	10 mg/m³ εισπν. 5 mg/m³ σναπν.
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Ireland - Occupational Exposure Limits	
Local name	Titanium dioxide
OEL TWA	10 mg/m³ total inhalable dust 4 mg/m³ respirable dust
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2024
Latvia - Occupational Exposure Limits	
Local name	Titāna dioksīds
OEL TWA	10 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2024. gada 26. martā noteikumiem Nr. 191).
Lithuania - Occupational Exposure Limits	
Local name	Titano dioksidas
IPRV (OEL TWA)	5 mg/m³
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)

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Titanium dioxide (13463-67-7)	
Poland - Occupational Exposure Limits	
Local name	Ditlenek tytanu
NDS (OEL TWA)	10 mg/m³ frakcja wdychalna
Remark	Frakcja wdychalna – frakcja aerozolu wnika ­ j ­ aca przez nos i usta, kt ­ ora stwarza zagro ­ zenie dla zdrowia po zdeponowaniu w drogach oddechowych. R ­ ownoleg ­ le oznacza si ­ e frakcj ­ e respirabiln ­ ą krystalicznej krzemionki.
Regulatory reference	Dz. U. 2024 poz. 1017 wraz z p ­ o ­ zn. zm.
Portugal - Occupational Exposure Limits	
Local name	Dióxido de titânio
OEL TWA	10 mg/m³
Remark	A4 (Agente não classificável como carcinogénico no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Dioxid de titan
OEL TWA	10 mg/m³
OEL STEL	15 mg/m³
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 179/2024)
Slovakia - Occupational Exposure Limits	
Local name	Oxid titaničitý
NPHV (OEL TWA)	5 mg/m³
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (122/2024 Z. z.)
Spain - Occupational Exposure Limits	
Local name	Dióxido de titanio
VLA-ED (OEL TWA)	10 mg/m³
Remark	inhalable aerosol
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2025. INSHT
Sweden - Occupational Exposure Limits	
Local name	Titandioxid
NGV (OEL TWA)	5 mg/m³ (totaldamm)
Remark	25 (Med inhalerbar och respirabel fraktion menas de dammfractioner som definieras i svensk standard SS-EN 481, Arbetsplatsluft – Partikelstorleksfraktioner för mätning av luftburna partiklar (utgåva 1, 1993). Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i en totaldammprovtagare)
Regulatory reference	Arbetsmiljöverkets föreskrifter och allmänna råd (AFS 2023:14) om gränsvärden för luftvägsexponering i arbetsmiljön
Propylidynetrimethanol (77-99-6)	
Lithuania - Occupational Exposure Limits	
Local name	Trimetilolpropanas

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Propylidyntrimethanol (77-99-6)	
NRV (OEL C)	5 ppm
Remark	Ū (ūmus poveikis)
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Sweden - Occupational Exposure Limits	
Local name	1,1,1-Trimetylolpropan
NGV (OEL TWA)	5 mg/m ³
Regulatory reference	Arbetsmiljöverkets föreskrifter och allmänna råd (AFS 2023:14) om gränsvärden för luftvägsexponering i arbetsmiljön

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:

Gloves.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses. DIN EN 166

Skin protection

Skin and body protection:

Wear suitable protective clothing. ISO 13688

Hand protection:

Wear suitable gloves resistant to chemical penetration. Chemical resistant gloves (according to European standard NF ISO 374-1 or equivalent)

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Gloves	Butyl rubber, Nitrile rubber (NBR)	6 (> 480 minutes)	≥ 0,11		EN ISO 374

Respiratory protection

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. CEN : EN 140; EN 143; EN 149

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Various colours.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

See section 3 for more information about nano properties.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

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4-morpholinecarbaldehyde (4394-85-8)	
LD50 oral rat	> 7314 mg/kg
LD50 dermal rabbit	> 18400 mg/kg (OECD 402)
tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate (136210-30-5)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 4.224 mg/m ³ (OECD 403)
diiron trioxide (1309-37-1)	
LD50 oral rat	> 5000 mg/kg
Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper (147-14-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2500 mg/kg/d
Propylidynetrimehanol (77-99-6)	
LD50 oral rat	14700 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
diiron trioxide (1309-37-1)	
pH	5 – 8
Carbon black (1333-86-4)	
pH	4 – 11
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
diiron trioxide (1309-37-1)	
pH	5 – 8
Carbon black (1333-86-4)	
pH	4 – 11
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
11.2. Information on other hazards	
Endocrine disrupting properties	
Adverse health effects caused by endocrine disrupting properties	: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

4-morpholinecarbaldehyde (4394-85-8)

LC50 - Fish [1]	> 500 mg/l (Leuciscus idus)
EC50 - Crustacea [1]	> 500 mg/l (Daphnia magna)
ErC50 algae	23880 mg/l (Desmodesmus subspicatus)

tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate (136210-30-5)

LC50 - Fish [1]	66 mg/l Brachydanio rerio (zebra-fish) (OECD 203)
EC50 - Crustacea [1]	88.6 mg/l
EC50 72h - Algae [1]	1319 mg/l (OECD 201)

Carbon black (1333-86-4)

LC50 - Fish [1]	> 1000 mg/l
EC50 - Crustacea [1]	> 5600 mg/l
EC50 72h - Algae [1]	> 10000 mg/l Scenedesmus subspicatus
NOEC chronic algae	> 10000 mg/l Scenedesmus subspicatus

29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper (147-14-8)

LC50 - Fish [1]	> 250 mg/l
EC50 - Crustacea [1]	≤ 500 mg/l Daphnia magna (Water flea)
EC50 72h - Algae [1]	> 100 mg/l Pseudomonas putida

Propylidynetrimethanol (77-99-6)

LC50 - Fish [1]	> 1000 mg/l (Alburnus alburnus)
EC50 - Crustacea [1]	13000 mg/l (Daphnia magna)
EC50 72h - Algae [1]	> 1000 mg/l (Pseudokirchneriella subcapitata)
NOEC chronic crustacea	> 1000 mg/l (Daphnia magna)

12.2. Persistence and degradability

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Persistence and degradability	Biodegradability in water: no data available.
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4-morpholinecarbaldehyde (4394-85-8)

Persistence and degradability	Readily biodegradable.
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tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate (136210-30-5)

Persistence and degradability	Not readily biodegradable.
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diiron trioxide (1309-37-1)

Persistence and degradability	Biodegradation: The methods for determining biodegradability are not applicable to inorganic substances.
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Carbon black (1333-86-4)	
Persistence and degradability	Biodegradation: The methods for determining biodegradability are not applicable to inorganic substances.
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper (147-14-8)	
Persistence and degradability	Biodegradability in water: no data available.
Titanium dioxide (13463-67-7)	
Persistence and degradability	Biodegradation: The methods for determining biodegradability are not applicable to inorganic substances.
Propylidynetrimethanol (77-99-6)	
Persistence and degradability	Not readily biodegradable.
12.3. Bioaccumulative potential	
4-morpholinecarbaldehyde (4394-85-8)	
Partition coefficient n-octanol/water (Log Pow)	-1.2 (23 °C; pH 7)
Propylidynetrimethanol (77-99-6)	
Partition coefficient n-octanol/water (Log Pow)	-0.47 (26 °C)
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Endocrine disrupting properties	
Adverse effects on the environment caused by endocrine disrupting properties	: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.
12.7. Other adverse effects	
No additional information available	

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.
HP Code	: HP7 - "Carcinogenic:" waste which induces cancer or increases its incidence HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not regulated for transport			

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ADR	IMDG	IATA	RID
14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	Pigment PA ; tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	Pigment PA ; tetraethyl N, N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

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POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Austria

Ordinance on Flammable Liquids (VbF) : Auto detect

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).

Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).

Major Accidents Ordinance (12. BImSchV) : Is not subject to the Major Accidents Ordinance (12. BImSchV)

Netherlands

ABM category : Not determined

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

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Poland

Polish National Regulations

: Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

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Abbreviations and acronyms:	
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Data sources

: ECHA (European Chemicals Agency). Supplier's safety documents.

Other information

: **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. REACH Disclaimer: This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number).

Full text of H- and EUH-statements:	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
H317	May cause an allergic skin reaction.

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Full text of H- and EUH-statements:	
H351	Suspected of causing cancer.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H412	Harmful to aquatic life with long lasting effects.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 3	H412	Calculation method

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