

EPOXY PUTTY 2132 RESIN

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 11/17/0020 Revision date: 3/29/2023 Supersedes version of: 12/21/2022 Version: 15.0

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

1.1. Product identifier

Product form : Mixture
Product name : EPOXY PUTTY 2132 RESIN
UFI : JTAF-NV80-X00X-V5X3
Product code : 307401

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cedesa Ltd	Australian Distributor:	Hubbell Harsh & Hazardous
Chater Lea Buildings Icknield Way		20 Oakdene Drive
SG6 1WT Letchworth Garden City		Madeley
United Kingdom		Western Australia
T 01462 480764		6065, Australia
sales@cedesa.co.uk - www.cedesa.co.uk		Contact: Callum Atkinson
	T: PH: +61 (0)8 9409 6339	Mb: +61 (0)488 155 160
	Email: catkinson@hubbell.com.au	

1.4. Emergency telephone number

Emergency number : 01462 480764

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Repeated exposure, Category 1	H372
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

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

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS08

Signal word (CLP) :

Danger

Contains :

SILICA QUARTZ; 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane;
Formaldehyde polymer with (chloromethyl)oxirane and phenol

Hazard statements (CLP) :

H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.

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Precautionary statements (CLP)	H372 - Causes damage to organs through prolonged or repeated exposure. H412 - Harmful to aquatic life with long lasting effects. : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P314 - Get medical advice/attention if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse.
EUH-statements	: EUH205 - Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards

Contains no PBT/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 is 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 %

Component	
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane(1675-54-3)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
SILICA QUARTZ substance with a Community workplace exposure limit	CAS-No.: 14808-60-7 EC-No.: 238-878-4 REACH-no: 01-2120770509-45	$\geq 25 - < 60$	STOT RE 1, H372
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	CAS-No.: 1675-54-3 EC-No.: 216-823-5 REACH-no: 01-2119456619-26	$\geq 10 - < 25$	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 2, H411
IRON OXIDE	CAS-No.: 1309-37-1 EC-No.: 215-168-2 REACH-no: 01-2119457614-35	$\geq 1 - < 10$	Aquatic Chronic 3, H412
Formaldehyde polymer with (chloromethyl)oxirane and phenol	CAS-No.: 9003-36-5 EC-No.: 500-006-8 REACH-no: 01-2119454392-40	< 5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
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 cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

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	: Water spray. Dry powder. Foam.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
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6.1.2. 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".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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

- Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

SILICA QUARTZ (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystalline (Quartz)
IOEL TWA	0.05 mg/m ³ (respirable dust)
Remark	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations
Austria - Occupational Exposure Limits	
Local name	Quarzfeinstaub (alveolengängiges kristallines Siliziumdioxid)
MAK (OEL TWA)	0.05 mg/m ³ (A)
Remark	Krebserzeugend: III C
Regulatory reference	BGBl. II Nr. 156/2021
Austria - Biological limit values	
Local name	Quarz Staub
Remark	Eignung mit vorzeitiger Folgeuntersuchung: Bei Vorliegen einer wesentlichen Beeinträchtigung der Lungenfunktion. Diese liegt jedenfalls vor, wenn nach mehrmaliger Messung der beste gemessene Wert den für den/die Untersuchte/n maßgebenden Sollwert um 20% unterschreitet bzw. den MEF50-Sollwert um 50% unterschreitet. Eine vorzeitige Folgeuntersuchung ist jedoch nicht erforderlich, wenn im Vergleich zu Vorbefunden der altersabhängige physiologische Abfall der 1-Sekundenkapazität (FEV1) von 40 ml/Jahr nicht überschritten wird oder aus der Beurteilung des Kurvenverlaufes der Forcierten Vitalkapazität (FVC) eine eingeschränkte Mitarbeit des Untersuchten/der Untersuchten ersichtlich ist. Der Zeitabstand zwischen den Untersuchungen beträgt bei Eignung: zwei Jahre bzw. für die Röntgenuntersuchung 4 Jahre; bei Eignung mit vorzeitiger Folgeuntersuchung: ein Jahr. Sofern eine vorzeitige Folgeuntersuchung lediglich auf Grund veränderter Lungenfunktionswerte erfolgt, ist die Lungenfunktionsprüfung durchzuführen, jedoch keine Röntgen-Aufnahme anzufertigen.
Regulatory reference	Verordnung über die Gesundheitsüberwachung am Arbeitsplatz 2017 (VGÜ 2017)

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SILICA QUARTZ (14808-60-7)	
Belgium - Occupational Exposure Limits	
Local name	Silices cristallines: quartz (poussières alvéolaires) # Siliciumdioxide (kristallijn): kwarts (inadembaar stof)
OEL TWA	0.1 mg/m ³
Remark	C: la mention "C" signifie que l'agent en question relève du champ d'application du titre 2 relatif aux agents cancérigènes, mutagènes et reprotoïques du livre VI du code de bien-être au travail. # C: de vermelding "C" betekent dat het betrokken agens valt onder het toepassingsgebied van titel 2 betreffende kankerverwekkende, mutagene en reprotoxische agentia van boek VI van de codex over het welzijn op het werk.
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Croatia - Occupational Exposure Limits	
Local name	Kristalni SiO ₂ , kvarc
GVI (OEL TWA) [1]	0.1 mg/m ³
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
Denmark - Occupational Exposure Limits	
Local name	Kvarts
OEL TWA [1]	0.3 mg/m ³ total 0.1 mg/m ³ total, respirabel
Remark	E (betyder, at stoffet har en EF-grænseværdi); K (betyder, at stoffet anses for at kunne være kræftfremkaldende)
Regulatory reference	BEK nr 1054 af 28/06/2022
Estonia - Occupational Exposure Limits	
Local name	Kvarts
OEL TWA	0.1 mg/m ³ peentolm
Remark	1 (Peentolm koosneb alla 2,5-mikromeetrise läbimõõduga osakestest, mis võivad jõuda koos sissehingatava õhuga kopsu alveoolidesse (respireeritav fraktsioon)), C (Kantseroogenne aine)
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 15.05.2021, 1)
Finland - Occupational Exposure Limits	
Local name	Kvartsi
HTP (OEL TWA) [1]	0.05 mg/m ³ alveolijae
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Silice (poussières alvéolaires de quartz)
VME (OEL TWA)	0.1 mg/m ³
Remark	Valeurs réglementaires contraignantes
Regulatory reference	Article R4412-149 du Code du travail (réf.: INRS ED 984, 2016; Décret n° 2019-1487; Décret n° 2020-1546; Décret n° 2021-434; Décret n° 2021-1849)
Ireland - Occupational Exposure Limits	
Local name	Quartz, respirable dust
OEL TWA [1]	0.1 mg/m ³
Remark	BOELV (Binding Occupational Exposure Limit Values)

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SILICA QUARTZ (14808-60-7)	
Regulatory reference	Chemical Agents Code of Practice 2021
Lithuania - Occupational Exposure Limits	
Local name	Įkvepiamojo kristalinio silicio dioksido dulkės (išskyrus kristobalitą ir tridimitą)
IPRV (OEL TWA)	0.1 mg/m ³ (alveolinė frakcija)
Remark	Kristalinio silicio dioksido formos yra šios: alfa kvarcas, beta kvarcas, alfa tridimitas, beta tridimitas, alfa kristobalitas, beta kristobalitas, kititas, koesitas, stišovitas ir moganitas. Kristobalitui ir tridimitui RD nustatytas atskirai.
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-457/A1-154, 2022-07-18)
Netherlands - Occupational Exposure Limits	
Local name	Respirabel kristallijn silicastof: – kwarts
TGG-8u (OEL TWA)	0.075 mg/m ³ Respirabele fractie
Remark	Kankerverwekkende stof
Regulatory reference	Arbeidsomstandighedenregeling 2022
Poland - Occupational Exposure Limits	
Local name	Krzemionka krystaliczna – kwarc
NDS (OEL TWA)	0.1 mg/m ³ frakcja respirabilna
Remark	Frakcja respirabilna – frakcja aerozolu wnikająca do dróg oddechowych, która stwarza zagrożenie dla zdrowia po zdeponowaniu w obszarze wymiany gazowej.
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Silica, cristalina α-Quartzo
OEL TWA	0.025 mg/m ³ R (Fração respirável)
Remark	A2 (Agente carcinogénico confirmado nos animais de laboratório com relevância desconhecida no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014
Slovakia - Occupational Exposure Limits	
Local name	Oxid kremičitý, kryštalický
NPHV (OEL TWA) [1]	0.1 mg/m ³ respirabilná frakcia (TSH)
Remark	Kategória karcinogénov 1A – Dokázaný karcinogén pre ľudí
Regulatory reference	Nariadenie vlády č. 356/2006 Z. z. (235/2020 Z. z.)
Spain - Occupational Exposure Limits	
Local name	Sílice Cristalina: Cuarzo
VLA-ED (OEL TWA) [1]	0.05 mg/m ³ Fracción respirable
Remark	v (Agente cancerígeno con valor límite vinculante recogido en el anexo III del Real Decreto 665/1997 y en sus modificaciones posteriores), d (Véase UNE EN 481: Atmósferas en los puestos de trabajo. Definición de las fracciones por el tamaño de las partículas para la medición de aerosoles), y (Reclasificado, por la International Agency for Research on Cancer (IARC) de grupo 2A (probablemente carcinogénico en humanos) a grupo 1 (carcinogénico en humanos)).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT
Sweden - Occupational Exposure Limits	
Local name	Kvarts

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SILICA QUARTZ (14808-60-7)	
NGV (OEL TWA)	0.1 mg/m ³ respirabel fraktion; Se även: Kristobalit och Tridymit
Remark	C (Ämnet är cancerframkallande. Risk för cancer finns även vid annan exponering än via inandning. För vissa cancerframkallande ämnen som inte har gränsvärden gäller förbud eller tillståndskrav enligt föreskrifterna om kemiska arbetsmiljörisiker); M (Medicinska kontroller kan krävas för hantering av ämnet. Se vidare föreskrifterna om medicinska kontroller i arbetslivet. För vissa ämnen ska arbetsgivaren erbjuda läkarundersökning och för andra ämnen gäller krav på periodisk läkarundersökning och tjänstbarhetsbedömning); 3 (Den respirabla fraktionen är de inhalerbara partiklar som når längst ner i luftvägarna, till alveolerna i lungorna)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
Norway - Occupational Exposure Limits	
Local name	Krystallinsk silika (SiO ₂), α-kvarts
Grenseverdi (OEL TWA) [1]	0.3 mg/m ³ Totalstøv 0.1 mg/m ³ Respirabelt støv
Remark	K: Kjemikalier som skal betraktes som kreftfremkallende; G: EU har fastsatt en bindende grenseverdi og/eller anmerkning for stoffet; 7) Støv som inneholder α-kvarts, kristobalitt og/eller tridymitt vurderes ut fra summasjonsformel. Samtidig må verdiene for sjenerende støv overholdes.
Regulatory reference	FOR-2021-06-28-2248
North Macedonia - Occupational Exposure Limits	
Local name	силика (кремен)
OEL TWA	0.15 mg/m ³ (A) алвеоларна фракција – дел на вдишани суспендирани материји, кои доспеваат до алвеолите
Remark	(Y)
Regulatory reference	Правилник за минималните барања за безбедност и здравје при работа на вработени од ризици поврзани со изложување на хемиски супстанции („Службен весник на Република Македонија“ бр.46/10)
Switzerland - Occupational Exposure Limits	
Local name	Dioxyde de silicium cristallisé [Quartz, Cristobalite, Tridymite] / Siliciumdioxid, kristallin [Quarz, Tridymit, Cristobalit]
MAK (OEL TWA) [1]	0.15 mg/m ³ (a) / (a)
Critical toxicity	Cancpulm, Silicose / Lungenkrebs, Silikose
Notation	C _{1A} , SS _C , P / C _{1A} , SS _C , P
Remark	HSE, NIOSH, OSHA
Regulatory reference	www.suva.ch, 28.03.2022
IRON OXIDE (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
Belgium - Occupational Exposure Limits	
Local name	Fer (trioxyde de) (fraction alvéolaire) # IJzeroxide (Fe ₂ O ₃) (inadembare fractie)

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IRON OXIDE (1309-37-1)	
OEL TWA	5 mg/m ³
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Bulgaria - Occupational Exposure Limits	
Local name	Желязооксиди
OEL TWA	5 mg/m ³ (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. 47 от 2021 г., в сила от 04.06.2021 г.)
Croatia - Occupational Exposure Limits	
Local name	Željezov (III) oksid
GVI (OEL TWA) [1]	5 mg/m ³ dim (kao Fe) 10 mg/m ³ prašina, U (ukupna prašina) 4 mg/m ³ prašina, R (respirabilna prašina)
KGVI (OEL STEL)	10 mg/m ³ dim (kao Fe)
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, граниčnim vrijednostima izloženosti i biološkim граниčnim vrijednostima (NN 1/2021)
Denmark - Occupational Exposure Limits	
Local name	Jernoxid
OEL TWA [1]	3.5 mg/m ³ beregnet som Fe
Regulatory reference	BEK nr 1054 af 28/06/2022
Estonia - Occupational Exposure Limits	
Local name	Raudoksiid (arvutatud rauale)
OEL TWA	3.5 mg/m ³
Remark	1 (Peentolm koosneb alla 2,5-mikromeetrise läbimõõduga osakestest, mis võivad jõuda koos sissehingatava õhuga kopsu alveoolidesse (respireeritav fraktsioon))
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 15.05.2021, 1)
Finland - Occupational Exposure Limits	
Local name	Rautaoksiidi, haurut
HTP (OEL TWA) [1]	5 mg/m ³ Fe
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Fer (Trioxyde de di-, fumées), en Fe
VME (OEL TWA)	5 mg/m ³
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Greece - Occupational Exposure Limits	
Local name	Σιδήρου (III) οξειδίο ως Fe
OEL TWA	10 mg/m ³
OEL STEL	10 mg/m ³
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους

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IRON OXIDE (1309-37-1)	
Hungary - Occupational Exposure Limits	
Local name	VAS(III)-OXID (Fe-ra számítva)
AK (OEL TWA)	4 mg/m ³ 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/m ³ (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/m ³ w przeliczeniu na Fe: frakcja wdychalna 2.5 mg/m ³ w przeliczeniu na Fe: frakcja respirabilna
NDSch (OEL STEL)	5 mg/m ³ w przeliczeniu na Fe: frakcja respirabilna 10 mg/m ³ w przeliczeniu na Fe: frakcja wdychalna
Remark	Frakcja wdychalna – frakcja aerozolu wnikająca przez nos i usta, która po zdeponowaniu w drogach oddechowych stwarza zagrożenie dla zdrowia. Frakcja respirabilna – frakcja aerozolu wnikająca do dróg oddechowych, która stwarza zagrożenie dla zdrowia po zdeponowaniu w obszarze wymiany gazowej.
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Óxido de ferro
OEL TWA	5 mg/m ³ 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/m ³ (Fumuri, pulberi)
OEL STEL	10 mg/m ³ (Fumuri, pulberi)
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)
Slovakia - Occupational Exposure Limits	
Local name	Oxidy železa, dymy (ako Fe)
NPHV (OEL TWA) [1]	1.5 mg/m ³ respirabilná frakcia 4 mg/m ³ inhalovateľná frakcia
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Spain - Occupational Exposure Limits	
Local name	Óxido de hierro (III)
VLA-ED (OEL TWA) [1]	5 mg/m ³ polvo y humos, como Fe
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT

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IRON OXIDE (1309-37-1)	
Sweden - Occupational Exposure Limits	
Local name	Järnoxid (som Fe)
NGV (OEL TWA)	3.5 mg/m ³ respirabel fraktion
Remark	3 (Den respirabla fraktionen är de inhalerbara partiklar som når längst ner i luftvägarna, till alveolerna i lungorna)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
Iceland - Occupational Exposure Limits	
Local name	Járnoxíð, sem Fe, örfint ryk
OEL TWA	3.5 mg/m ³
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway - Occupational Exposure Limits	
Local name	Jern(III)oksid (beregnet som Fe)
Grønseverdi (OEL TWA) [1]	3 mg/m ³
Regulatory reference	FOR-2021-06-28-2248
Switzerland - Occupational Exposure Limits	
Local name	Oxydes de fer / Eisenoxide
MAK (OEL TWA) [1]	3 mg/m ³ (a) / (a)
Critical toxicity	Poumons, Fibpulm / Lunge, Lungenfibrose
Remark	NIOSH
Regulatory reference	www.suva.ch, 28.03.2022

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

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8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: dark red.
Odour	: Barely perceptible odour.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Insoluble.
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	: 2
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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.

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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
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

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LD50 dermal	> 10900 mg/kg
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2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
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LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
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Formaldehyde polymer with (chloromethyl)oxirane and phenol (9003-36-5)

LD50 oral rat	> 2000 mg/kg Source: GESTIS
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LD50 dermal rat	> 400 mg/kg Source: GESTIS
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IRON OXIDE (1309-37-1)

LD50 oral	> 5000 mg/kg bodyweight Animal: , Guideline: EU Method B.1 (Acute Toxicity (Oral))
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Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

SILICA QUARTZ (14808-60-7)

IARC group	1 - Carcinogenic to humans
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2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)

NOAEL (chronic, oral, animal/male, 2 years)	15 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:, Remarks on results: other:
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2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
NOAEL (chronic, oral, animal/female, 2 years)	100 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:, Remarks on results: other:

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.

SILICA QUARTZ (14808-60-7)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
NOAEL (oral, rat, 90 days)	50 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: other:
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

IRON OXIDE (1309-37-1)	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	0.2102 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	≥ 0.03 mg/l air Animal: rat, Animal sex: male
Aspiration hazard	: Not classified

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Viscosity, kinematic	Not applicable

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.
Not rapidly degradable	

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
LC50 - Fish [1]	1.2 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 72h - Algae [1]	9.4 mg/l Test organisms (species): Scenedesmus capricornutum
EC50 72h - Algae [2]	> 11 mg/l Test organisms (species): Scenedesmus capricornutum
LOEC (chronic)	1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

IRON OXIDE (1309-37-1)	
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	> 100 mg/l Test organisms (species):

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IRON OXIDE (1309-37-1)

EC50 72h - Algae [1]

> 20 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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

No additional information available

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.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

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

14.6. Special precautions for user

Overland transport

Not applicable

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Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

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)

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 1005/2009 on substances that deplete the ozone layer)

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)

15.1.2. National regulations

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).
- Chemicals Prohibition Ordinance (ChemVerbotsV) : This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).
- Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

- SZW-lijst van kankerverwekkende stoffen : SILICA QUARTZ is listed
- SZW-lijst van mutagene stoffen : None of the components are listed

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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
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
People who have eczema or allergy to epoxy, may not work with the material
The requirements from the Danish Working Environment Authorities regarding work with epoxy resins and isocyanates must be observed during use and disposal
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

Switzerland

Storage class (LK) : LK 6.1 - Toxic materials
Chemicals Ordinance (SR 813.11) : Group 2

15.2. Chemical safety assessment

No chemical safety assessment has been carried out
All Components are listed on AICIS, or are exempt

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
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

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Abbreviations and acronyms:	
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 disrupting properties

Full text of H- and EUH-statements:	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH205	Contains epoxy constituents. May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.