Equi-Pak CS 47122 Part A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 7/15/2021 Version: 1.0

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	Equi-Pak CS 47122 Part A

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

1.2.1. Relevant identified uses

Industrial/Professional use spec	:	Professional use
Function or use category	:	Padding material for horse hooves

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Royal Kerckhaert Horseshoe Factory
Rapenburg 76
4581AE Vogelwaarde
The Netherlands
Info@vettec.com

1.4. Emergency telephone number

+31 114 671 361 (8 a.m. to 5 p.m., Monday to Friday) (Languages: Dutch, English, French, Italian, German and Portuguese)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Respiratory sensitisation, Category 1	H334
Skin sensitisation, Category 1	H317
Carcinogenicity, Category 2	H351
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity — Repeated exposure, Category 2	H373

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

Adverse physicochemical, human health and environmental effects

Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07 GHS08

Signal word (CLP) : Danger

Contains	:	4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate, methylenediphenyl diisocyanate, BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER
Hazard statements (CLP)	:	H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H332 - Harmful if inhaled. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 - May cause respiratory irritation. H351 - Suspected of causing cancer. H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (CLP)	:	P201 - Obtain special instructions before use. P260 - Do not breathe vapours. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

2.3. Other hazards

other hazards which do not result in classification	:	This product contains isocyanates. Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, 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

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]
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate	CAS-No.: 5124-30-1 EC-No.: 225-863-2 EC Index-No.: 615-009-00-0 REACH-no: Not available	20 - 40	Acute Tox. 2 (Inhalation), H330 (ATE=0.05 mg/l) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335
methylenediphenyl diisocyanate	CAS-No.: 26447-40-5 EC-No.: 247-714-0 EC Index-No.: 615-005-00-9 REACH-no: Not available	5 - 20	Carc. 2, H351 Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l) STOT RE 2, H373 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317
BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER	CAS-No.: 39310-05-9 EC-No.: 609-645-8 REACH-no: Not available	1 - 10	Resp. Sens. 1, H334

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate	CAS-No.: 5124-30-1 EC-No.: 225-863-2 EC Index-No.: 615-009-00-0 REACH-no: Not available	(0.5 ≤C ≤ 100) Resp. Sens. 1, H334 (0.5 ≤C ≤ 100) Skin Sens. 1, H317
methylenediphenyl diisocyanate	CAS-No.: 26447-40-5 EC-No.: 247-714-0 EC Index-No.: 615-005-00-9 REACH-no: Not available	(0.1 ≤C < 100) Resp. Sens. 1, H334 (5 ≤C < 100) STOT SE 3, H335 (5 ≤C < 100) Skin Irrit. 2, H315 (5 ≤C < 100) Eye Irrit. 2, H319

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Suspected of causing cancer.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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. Wash with plenty of water/…. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs:

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. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting. Call a poison center or a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects : Causes damage to organs.

Symptoms/effects after inhalation : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction. Individuals sensitized to isocyanates may have a life-threatening allergic reaction. Causes skin irritation.

Symptoms/effects after eye contact : Eye irritation. Causes serious 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. Carbon dioxide. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide. Hydrogen cyanide.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protective equipment for firefighters : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

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. Evacuate unnecessary personnel.

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". Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

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. See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : 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. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray.

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. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store away from strong oxidizers, strong bases, strong acids. Keep only in the original container in a cool, well ventilated place away from : Moisture. Do not reseal if contamination is suspected.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Strong bases. Water. Strong acids.

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

4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate (5124-30-1)	
Belgium - Occupational Exposure Limits	
Local name	Méthylène bis(4-cyclohexylisocyanate) # Methyleen bis(4-cyclohexylisocyanaat)
OEL TWA	0.055 mg/m³
OEL TWA [ppm]	0.005 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 19/11/2020
Denmark - Occupational Exposure Limits	
Local name	Methylenbis(4-cyclohexylisocyanat)
OEL TWA [1]	0.054 mg/m³
OEL TWA [2]	0.005 ppm
Regulatory reference	BEK nr 1426 af 28. juni 2021
Greece - Occupational Exposure Limits	
Local name	Μεθυλένιο, δις (4-κυκλοεξυλο-ισοκθανικό-)
OEL TWA	0.11 mg/m³
OEL TWA [ppm]	0.01 ppm
OEL STEL	0.11 mg/m³
OEL STEL [ppm]	0.01 ppm
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Portugal - Occupational Exposure Limits	
Local name	Metileno-bis(4-ciclohexilisocianato)
OEL TWA [ppm]	0.005 ppm
Regulatory reference	Norma Portuguesa NP 1796:2014
Spain - Occupational Exposure Limits	
Local name	Metileno-bis (4-ciclohexilisocianato) (Diisocianato de 4,4´-diciclohexilmetano)
VLA-ED (OEL TWA) [1]	0.055 mg/m³
VLA-ED (OEL TWA) [2]	0.005 ppm
Remark	Sen (Sensibilizante).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT
USA - ACGIH - Occupational Exposure Limits	
Local name	Methylene bis(4-cyclohexylisocyanate)
ACGIH OEL TWA [ppm]	0.005 ppm
Remark (ACGIH)	TLV® Basis: Resp sens; LRT irr
Regulatory reference	ACGIH 2021

methylenediphenyl diisocyanate (26447-40-5)	
Poland - Occupational Exposure Limits	
Local name	Diizocyjanian metylenodifenylu - mieszanina izomerów (metylenodifenylodiizocyjanian, MDI)
NDS (OEL TWA)	0.03 mg/m³
NDSCh (OEL STEL)	0.09 mg/m³
Regulatory reference	Dz. U. 2018 poz. 1286

Isopropyl Alcohol (67-63-0)	
Belgium - Occupational Exposure Limits	
Local name	Alcool isopropylique # Isopropylalcohol
OEL TWA	500 mg/m³
OEL TWA [ppm]	200 ppm
OEL STEL	1000 mg/m³
OEL STEL [ppm]	400 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 19/11/2020
Bulgaria - Occupational Exposure Limits	
Local name	Изопропилов алкохол
OEL TWA	980 mg/m³
OEL STEL	1225 mg/m³
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.5 от 17 Януари 2020 г.)
Croatia - Occupational Exposure Limits	
Local name	Propan-2-ol; izopropil-alkohol; izopropanol
GVI (OEL TWA) [1]	999 mg/m³
GVI (OEL TWA) [2]	400 ppm
KGVI (OEL STEL)	1250 mg/m³
KGVI (OEL STEL) [ppm]	500 ppm
Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 1/2021)
Croatia - Biological limit values	
Local name	Propan-2-ol
BLV	50 mg/l Karakteristični pokazatelj: aceton - Biološki uzorak: krv - Vrijeme uzorkovanja: na kraju radne smjene 0.86 µmol/l Karakteristični pokazatelj: aceton - Biološki uzorak: krv - Vrijeme uzorkovanja: na kraju radne smjene 50 mg/l Karakteristični pokazatelj: aceton - Biološki uzorak: mokraća - Vrijeme uzorkovanja: na kraju radne smjene 0.86 µmol/l Karakteristični pokazatelj: aceton - Biološki uzorak: mokraća - Vrijeme uzorkovanja: na kraju radne smjene
Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 91/2018)
Czech Republic - Occupational Exposure Limits	
Local name	2-Propanol (Isopropanol; Izopropylalkohol)
PEL (OEL TWA)	500 mg/m³

Isopropyl Alcohol (67-63-0)	
PEL (OEL TWA) [ppm]	200 ppm
NPK-P (OEL C)	1000 mg/m³
NPK-P (OEL C) [ppm]	400 ppm
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (Předpis 195/2021 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Isopropylalkohol (Isopropanol; 2-Propanol; sec-Propylalkohol)
OEL TWA [1]	490 mg/m³
OEL TWA [2]	200 ppm
Regulatory reference	BEK nr 1426 af 28. juni 2021
Estonia - Occupational Exposure Limits	
Local name	2-propanool (isopropüülalkohol, isopropanool)
OEL TWA	350 mg/m³
OEL TWA [ppm]	150 ppm
OEL STEL	600 mg/m³
OEL STEL [ppm]	250 ppm
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 17.10.2019, 2); Vabariigi Valitsuse 10. märtsi 2019. a määruse nr 84
Finland - Occupational Exposure Limits	
Local name	2-Propanoli
HTP (OEL TWA) [1]	500 mg/m³
HTP (OEL TWA) [2]	200 ppm
HTP (OEL STEL)	620 mg/m³
HTP (OEL STEL) [ppm]	250 ppm
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Alcool isopropylique
VLE (OEL C/STEL)	980 mg/m³
VLE (OEL C/STEL) [ppm]	400 ppm
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Propan-2-ol
AGW (OEL TWA) [1]	500 mg/m³
AGW (OEL TWA) [2]	200 ppm
Peak exposure limitation factor	2(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900

Isopropyl Alcohol (67-63-0)	
Germany - Biological limit values (TRGS 903)	
Local name	Propan-2-ol
Biological limit value	25 mg/l Parameter: Aceton - Untersuchungsmaterial: B = Vollblut, U = Urin - Probenahmezeitpunkt: b) Expositionsende, bzw. Schichtende - Festlegung/Begründung: 11/2012 DFG 25 mg/l Parameter: Aceton - Untersuchungsmaterial: U = Urin - Probenahmezeitpunkt: b) Expositionsende, bzw. Schichtende - Festlegung/Begründung: 11/2012 DFG
Regulatory reference	TRGS 903
Greece - Occupational Exposure Limits	
Local name	Ισοπροπυλική αλκοόλη
OEL TWA	980 mg/m³
OEL TWA [ppm]	400 ppm
OEL STEL	1225 mg/m³
OEL STEL [ppm]	500 ppm
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	IZOPROPIL-ALKOHOL
AK (OEL TWA)	500 mg/m³
CK (OEL STEL)	1000 mg/m³
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
Hungary - Biological Exposure Indices	
Local name	Izopropil-alkohol (2-Propanol)
BEI	25 mg/l Biológiai expozíciós (hatás) mutató: aceton - Biológiai minta: vizeletben - Mintavétel ideje: m.v. (műszak végén) 430 µmol/l Biológiai expozíciós (hatás) mutató: aceton - Biológiai minta: vizeletben - Mintavétel ideje: m.v. (műszak végén)
Remark	A foglalkozási vegyi expozíció esetén ajánlott biológiai expozíciós és hatásmutatók határértékei
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	Isopropyl alcohol [Propan-2-ol]
OEL TWA [2]	200 ppm
OEL STEL [ppm]	400 ppm
Regulatory reference	Chemical Agents Code of Practice 2021
Ireland - Biological limit values	
Local name	2-Propanol
BLV	40 mg/l Parameter: acetone - Medium: urine - Sampling time: End of shift at end of workweek - Notations: B (Background), Ns (Non-specific)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)

Isopropyl Alcohol (67-63-0)	
Latvia - Occupational Exposure Limits	
Local name	Izopropanols (2-propanols, izopropilspirts, 1-metil-1-etanols)
OEL TWA	350 mg/m³
OEL STEL	600 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2011. gada 1. februārī noteikumiem Nr. 92)
Lithuania - Occupational Exposure Limits	
Local name	2-propanolis (izopropanolis, izopropilo alkoholis)
IPRV (OEL TWA)	350 mg/m³
IPRV (OEL TWA) [ppm]	150 ppm
TPRV (OEL STEL)	600 mg/m³
TPRV (OEL STEL) [ppm]	250 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Poland - Occupational Exposure Limits	
Local name	Propan-2-ol (izopropylowy alkohol)
NDS (OEL TWA)	900 mg/m³
NDSCh (OEL STEL)	1200 mg/m³
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	2-Propanol (isopropanol ou álcool isopropílico)
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Remark	A4 (Agente não classificável como carcinogénico no Homem); IBE (Índice biológico de exposição)
Regulatory reference	Norma Portuguesa NP 1796:2014
Portugal - Biological Exposure Indices	
Local name	2-Propanol
BEI	40 mg/l Parâmetro: Acetona - Meio: urina - Momento da amostragem: Fim do turno no fim da semana de trabalho - Notaçao: Vb (Valor basal), Ne (Não específico)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Alcool izopropilic/2-Propanol
OEL TWA	200 mg/m³
OEL TWA [ppm]	81 ppm
OEL STEL	500 mg/m³
OEL STEL [ppm]	203 ppm
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)
Romania - Biological limit values	
Local name	Alcool izopropilic

Isopropyl Alcohol (67-63-0)	
BLV	50 mg/l Indicador biologic: Acetonă - Material biologic: urină - Momentul recoltarii: sfârşit de schimb
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 584/2018)
Slovakia - Occupational Exposure Limits	
Local name	Izopropylalkohol (propán-2-ol)
NPHV (OEL TWA) [1]	500 mg/m³
NPHV (OEL TWA) [2]	200 ppm
NPHV (OEL STEL)	1000 mg/m³
NPHV (OEL STEL) [ppm]	400 ppm
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Slovenia - Occupational Exposure Limits	
Local name	propan-2-ol (izopropilalkohol; izopropanol)
OEL TWA	500 mg/m³
OEL TWA [ppm]	200 ppm
OEL STEL	1000 mg/m³
OEL STEL [ppm]	400 ppm
Remark	Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti), BAT (Biološka mejna vrednost)
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Slovenia - Biological limit values	
Local name	2-propanol
BLV	25 mg/l Parameter: aceton - Biološki vzorec: kri - Čas vzorčenja: ob koncu delovne izmene 25 mg/l Parameter: aceton - Biološki vzorec: urin - Čas vzorčenja: ob koncu delovne izmene
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	Isopropanol (Alcohol isopropílico)
VLA-ED (OEL TWA) [1]	500 mg/m³
VLA-ED (OEL TWA) [2]	200 ppm
VLA-EC (OEL STEL)	1000 mg/m³
VLA-EC (OEL STEL) [ppm]	400 ppm
Remark	VLB® (Agente químico que tiene Valor Límite Biológico), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT
Spain - Biological limit values	
Local name	Isopropanol (Alcohol isopropílico)

Isopropyl Alcohol (67-63-0)	
BLV	40 mg/l Parámetro: Acetona - Medio: Orina - Momento de muestreo: Final de la semana laboral - Notas: F (Fondo. El indicador está generalmente presente en cantidades detectables en personas no expuestas laboraboralmente. Estos niveles de fondo están considerados en el valor VLB), I (Significa que el indicador biológico es inespecífico puesto que puede encontrarse después de la exposición a otros agentes químicos)
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT
Sweden - Occupational Exposure Limits	
Local name	Isopropanol
NGV (OEL TWA)	350 mg/m³
NGV (OEL TWA) [ppm]	150 ppm
KTV (OEL STEL)	600 mg/m³
KTV (OEL STEL) [ppm]	250 ppm
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Propan-2-ol
WEL TWA (OEL TWA) [1]	999 mg/m³
WEL TWA (OEL TWA) [2]	400 ppm
WEL STEL (OEL STEL)	1250 mg/m³
WEL STEL (OEL STEL) [ppm]	500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Propanol
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	400 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	
Local name	2-PROPANOL
BEI	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: End of shift at end of workweek - Notations: B, Ns
Regulatory reference	ACGIH 2021

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:
Gloves. Use breathing mask and filter suitable for organic gases and vapours. Protective clothing. Avoid all unnecessary exposure.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses. Wear eye glasses with side protection according to EN 166.

8.2.2.2. Skin protection

Skin and body protection:
Long-sleeved apron/clothing with liquid tight type 3, protective against liquid chemicals (tested EN 14605)

Hand protection:
Protective gloves. EN 374. Butyl rubber. Break through time: ≥ 480 min. Layer thickness : >1,1 mm

8.2.2.3. Respiratory protection

Respiratory protection:
This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless.
Appearance	:	Viscous liquid.
Odour	:	Odourless.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	> 204.4 °C
Flammability	:	Not applicable,Non flammable.
Explosive limits	:	Not available
Lower explosive limit (LEL)	:	Not available
Upper explosive limit (UEL)	:	Not available
Flash point	:	> 143.3 °C
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	:	< 0 Pa @20°C
Vapour pressure at 50 °C	:	Not available
Density	:	Not available
Relative density	:	1.1 g/cm³
Relative vapour density at 20 °C	:	> 1
Particle size	:	Not applicable
Particle size distribution	:	Not applicable
Particle shape	:	Not applicable
Particle aspect ratio	:	Not applicable
Particle aggregation state	:	Not applicable
Particle agglomeration state	:	Not applicable
Particle specific surface area	:	Not applicable
Particle dustiness	:	Not applicable

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

Reacts with water to liberate CO2 gas which may build pressure in closed containers.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Polymerization. in the presence of. water.

10.4. Conditions to avoid

Moisture.

10.5. Incompatible materials

Water. Strong acids. Strong bases.

10.6. Hazardous decomposition products

On combustion, forms: carbon oxides (CO and CO2). Nitrogen oxides. Hydrogen cyanide. fume.

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)	:	Harmful if inhaled.

Equi-Pak CS 47122 Part A	
ATE CLP (dust,mist)	1.166 mg/l/4h

4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate (5124-30-1)	
LD50 oral rat	9980 mg/kg

4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate (5124-30-1)	
LD50 dermal rabbit	> 10000 mg/kg
LC50 Inhalation - Rat	0.368 mg/l/4h

methylenediphenyl diisocyanate (26447-40-5)	
LD50 oral rat	31600 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : May cause respiratory irritation.

4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate (5124-30-1)	
STOT-single exposure	May cause respiratory irritation.

methylenediphenyl diisocyanate (26447-40-5)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

methylenediphenyl diisocyanate (26447-40-5)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential Adverse human health effects and symptoms : Harmful if inhaled.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate (5124-30-1)	
LC50 - Fish [1]	1.2 mg/l
EC50 - Crustacea [1]	7.07 mg/l

12.2. Persistence and degradability

Equi-Pak CS 47122 Part A	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Equi-Pak CS 47122 Part A	
Bioaccumulative potential	Isocyanates hydrolyze rapidly in aqueous solutions, therefore bioconcentration is not an important environmental fate process. Not established.

12.4. Mobility in soil

Equi-Pak CS 47122 Part A	
Additional information	Isocyanates hydrolyze rapidly in aqueous solutions, therefore leaching and adsorption to moist soil and sediment will not be an important environmental fate process.

12.5. Results of PBT and vPvB assessment

Equi-Pak CS 47122 Part A
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

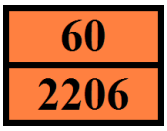
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 2206	UN 2206	UN 2206	UN 2206	UN 2206
14.2. UN proper shipping name				
ISOCYANATE SOLUTION, TOXIC, N.O.S.	ISOCYANATE SOLUTION, TOXIC, N.O.S.	Isocyanate solution, toxic, n.o.s.	ISOCYANATE SOLUTION, TOXIC, N.O.S.	ISOCYANATE SOLUTION, TOXIC, N.O.S.

ADR	IMDG	IATA	ADN	RID
Transport document description				
UN 2206 ISOCYANATE SOLUTION, TOXIC, N.O.S. (Triethoxy(3-isocyanatopropyl)silane ; 4,4'-Methylenediphenyl diisocyanate, oligomers), 6.1, II, (D/E)	UN 2206 ISOCYANATE SOLUTION, TOXIC, N.O.S. (Triethoxy(3-isocyanatopropyl)silane ; 4,4'-Methylenediphenyl diisocyanate, oligomers), 6.1, II	UN 2206 Isocyanate solution, toxic, n.o.s. (Triethoxy(3-isocyanatopropyl)silane ; 4,4'-Methylenediphenyl diisocyanate, oligomers), 6.1, II	UN 2206 ISOCYANATE SOLUTION, TOXIC, N.O.S. (Triethoxy(3-isocyanatopropyl)silane ; 4,4'-Methylenediphenyl diisocyanate, oligomers), 6.1, II	UN 2206 ISOCYANATE SOLUTION, TOXIC, N.O.S. (Triethoxy(3-isocyanatopropyl)silane ; 4,4'-Methylenediphenyl diisocyanate, oligomers), 6.1, II
14.3. Transport hazard class(es)				
6.1	6.1	6.1	6.1	6.1
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	T1
Special provisions (ADR)	:	274, 551
Limited quantities (ADR)	:	100ml
Excepted quantities (ADR)	:	E4
Packing instructions (ADR)	:	P001, IBC02
Mixed packing provisions (ADR)	:	MP15
Portable tank and bulk container instructions (ADR)	:	T11
Portable tank and bulk container special provisions (ADR)	:	TP2, TP27
Tank code (ADR)	:	L4BH
Tank special provisions (ADR)	:	TU15, TE19
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	2
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV13, CV28
Special provisions for carriage - Operation (ADR)	:	S9, S19
Hazard identification number (Kemler No.)	:	60
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E
EAC code	:	2X

Transport by sea

Special provisions (IMDG)	:	274
Limited quantities (IMDG)	:	100 ml
Excepted quantities (IMDG)	:	E4
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02

Tank instructions (IMDG)	:	T11
Tank special provisions (IMDG)	:	TP2, TP13, TP27
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-A
Stowage category (IMDG)	:	E
Stowage and handling (IMDG)	:	SW1, SW2
Properties and observations (IMDG)	:	Liquids with a pungent odour. Immiscible with water but react with it to form carbon dioxide. Toxic if swallowed, by skin contact or by inhalation. If under deck, with mechanical ventilation, six air changes per hour, except when carried in closed containers, when two air changes per hour are required. Irritating to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA)	:	E4
PCA Limited quantities (IATA)	:	Y641
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	654
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	662
CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A3
ERG code (IATA)	:	6L

Inland waterway transport

Classification code (ADN)	:	T1
Special provisions (ADN)	:	274, 551, 802
Limited quantities (ADN)	:	100 ml
Excepted quantities (ADN)	:	E4
Equipment required (ADN)	:	PP, EP, TOX, A
Ventilation (ADN)	:	VE02
Number of blue cones/lights (ADN)	:	2

Rail transport

Classification code (RID)	:	T1
Special provisions (RID)	:	274, 551
Limited quantities (RID)	:	100ml
Excepted quantities (RID)	:	E4
Packing instructions (RID)	:	P001, IBC02
Mixed packing provisions (RID)	:	MP15
Portable tank and bulk container instructions (RID)	:	T11
Portable tank and bulk container special provisions (RID)	:	TP2, TP27
Tank codes for RID tanks (RID)	:	L4BH
Special provisions for RID tanks (RID)	:	TU15
Transport category (RID)	:	2
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW13, CW28, CW31
Colis express (express parcels) (RID)	:	CE5
Hazard identification number (RID)	:	60

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

EU restriction list (REACH Annex XVII)	
Reference code	**Applicable on**
3(b)	Equi-Pak CS 47122 Part A ; 4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate ; BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER
56.	methylenediphenyl diisocyanate
74.	4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

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 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

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 Pregnant/breastfeeding women working with the product must not be in direct contact with the product The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

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)

Abbreviations and acronyms:	
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
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

Sources of Key data : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

Full text of H- and EUH-statements:	
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Resp. Sens. 1	H334	Calculation method
Skin Sens. 1	H317	Calculation method
Carc. 2	H351	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method

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.

Equipak CS 47122 Part B

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 8/5/2021 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Trade name : Equipak CS 47122 Part B

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Professional use
Function or use category : Padding material for horse hooves

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Royal Kerckhaert Horseshoe Factory
Rapenburg 76
4581AE Vogelwaarde
The Netherlands
Info@vettec.com

1.4. Emergency telephone number

+31 114 671 361 (8 a.m. to 5 p.m., Monday to Friday) (Languages: Dutch, English, French, Italian, German and Portuguese)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2	H319
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

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning
Hazard statements (CLP) : H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP) : P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local/national regulation.

2.3. Other hazards

Other hazards which do not result in classification : Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, 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

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]
N,N,N',N'-Tetrakis(2-hydroxypropyl)ethylenediamine	CAS-No.: 102-60-3 EC-No.: 203-041-4 REACH-no: Not available	5 - 10	Eye Irrit. 2, H319
Synthetic amorphous silica, fumed, crystalline-free (nanomaterial)	CAS-No.: 112945-52-5 EC-No.: 601-216-3 REACH-no: Not available	1 - 3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Copper sulphate pentahydrate	CAS-No.: 7758-99-8 EC-No.: 231-847-6 REACH-no: Not available	1 - 3	Acute Tox. 4 (Oral), H302 (ATE 500 mg/Kg) Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

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 : Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects after eye contact : Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Strong oxidizing agents.

Incompatible products : Strong oxidizing agents. Strong acids.

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

Copper sulphate pentahydrate (7758-99-8)	
Finland - Occupational Exposure Limits	
Local name	Kupari-(II)-sulfaatti, pentahydraatti
HTP (OEL TWA) [1]	0.02 mg/m³ Cu, alveolijae
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)

Isopropyl Alcohol (67-63-0)	
Belgium - Occupational Exposure Limits	
Local name	Alcool isopropylique # Isopropylalcohol
OEL TWA	500 mg/m³
OEL TWA [ppm]	200 ppm
OEL STEL	1000 mg/m³
OEL STEL [ppm]	400 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 19/11/2020
Bulgaria - Occupational Exposure Limits	
Local name	Изопропилов алкохол
OEL TWA	980 mg/m³
OEL STEL	1225 mg/m³
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.5 от 17 Януари 2020 г.)
Croatia - Occupational Exposure Limits	
Local name	Propan-2-ol; izopropil-alkohol; izopropanol
GVI (OEL TWA) [1]	999 mg/m³
GVI (OEL TWA) [2]	400 ppm
KGVI (OEL STEL)	1250 mg/m³
KGVI (OEL STEL) [ppm]	500 ppm
Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 1/2021)
Croatia - Biological limit values	
Local name	Propan-2-ol
BLV	50 mg/l Karakteristični pokazatelj: aceton - Biološki uzorak: krv - Vrijeme uzorkovanja: na kraju radne smjene 0.86 µmol/l Karakteristični pokazatelj: aceton - Biološki uzorak: krv - Vrijeme uzorkovanja: na kraju radne smjene 50 mg/l Karakteristični pokazatelj: aceton - Biološki uzorak: mokraća - Vrijeme uzorkovanja: na kraju radne smjene 0.86 µmol/l Karakteristični pokazatelj: aceton - Biološki uzorak: mokraća - Vrijeme uzorkovanja: na kraju radne smjene
Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 91/2018)

Isopropyl Alcohol (67-63-0)	
Czech Republic - Occupational Exposure Limits	
Local name	2-Propanol (Isopropanol; Izopropylalkohol)
PEL (OEL TWA)	500 mg/m³
PEL (OEL TWA) [ppm]	200 ppm
NPK-P (OEL C)	1000 mg/m³
NPK-P (OEL C) [ppm]	400 ppm
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (Předpis 195/2021 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Isopropylalkohol (Isopropanol; 2-Propanol; sec-Propylalkohol)
OEL TWA [1]	490 mg/m³
OEL TWA [2]	200 ppm
Regulatory reference	BEK nr 1426 af 28. juni 2021
Estonia - Occupational Exposure Limits	
Local name	2-propanool (isopropüülalkohol, isopropanool)
OEL TWA	350 mg/m³
OEL TWA [ppm]	150 ppm
OEL STEL	600 mg/m³
OEL STEL [ppm]	250 ppm
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 17.10.2019, 2); Vabariigi Valitsuse 10. märtsi 2019. a määruse nr 84
Finland - Occupational Exposure Limits	
Local name	2-Propanoli
HTP (OEL TWA) [1]	500 mg/m³
HTP (OEL TWA) [2]	200 ppm
HTP (OEL STEL)	620 mg/m³
HTP (OEL STEL) [ppm]	250 ppm
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Alcool isopropylique
VLE (OEL C/STEL)	980 mg/m³
VLE (OEL C/STEL) [ppm]	400 ppm
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Propan-2-ol
AGW (OEL TWA) [1]	500 mg/m³
AGW (OEL TWA) [2]	200 ppm
Peak exposure limitation factor	2(II)

Isopropyl Alcohol (67-63-0)	
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900
Germany - Biological limit values (TRGS 903)	
Local name	Propan-2-ol
Biological limit value	25 mg/l Parameter: Aceton - Untersuchungsmaterial: B = Vollblut, U = Urin - Probenahmezeitpunkt: b) Expositionsende, bzw. Schichtende - Festlegung/Begründung: 11/2012 DFG 25 mg/l Parameter: Aceton - Untersuchungsmaterial: U = Urin - Probenahmezeitpunkt: b) Expositionsende, bzw. Schichtende - Festlegung/Begründung: 11/2012 DFG
Regulatory reference	TRGS 903
Greece - Occupational Exposure Limits	
Local name	Ισοπροπυλική αλκοόλη
OEL TWA	980 mg/m³
OEL TWA [ppm]	400 ppm
OEL STEL	1225 mg/m³
OEL STEL [ppm]	500 ppm
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	IZOPROPIL-ALKOHOL
AK (OEL TWA)	500 mg/m³
CK (OEL STEL)	1000 mg/m³
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
Hungary - Biological Exposure Indices	
Local name	Izopropil-alkohol (2-Propanol)
BEI	25 mg/l Biológiai expozíciós (hatás) mutató: aceton - Biológiai minta: vizeletben - Mintavétel ideje: m.v. (műszak végén) 430 µmol/l Biológiai expozíciós (hatás) mutató: aceton - Biológiai minta: vizeletben - Mintavétel ideje: m.v. (műszak végén)
Remark	A foglalkozási vegyi expozíció esetén ajánlott biológiai expozíciós és hatásmutatók határértékei
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	Isopropyl alcohol [Propan-2-ol]
OEL TWA [2]	200 ppm
OEL STEL [ppm]	400 ppm
Regulatory reference	Chemical Agents Code of Practice 2021
Ireland - Biological limit values	
Local name	2-Propanol

Isopropyl Alcohol (67-63-0)	
BLV	40 mg/l Parameter: acetone - Medium: urine - Sampling time: End of shift at end of workweek - Notations: B (Background), Ns (Non-specific)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
Latvia - Occupational Exposure Limits	
Local name	Izopropanols (2-propanols, izopropilspirts, 1-metil-1-etanols)
OEL TWA	350 mg/m³
OEL STEL	600 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2011. gada 1. februārī noteikumiem Nr. 92)
Lithuania - Occupational Exposure Limits	
Local name	2-propanolis (izopropanolis, izopropilo alkoholis)
IPRV (OEL TWA)	350 mg/m³
IPRV (OEL TWA) [ppm]	150 ppm
TPRV (OEL STEL)	600 mg/m³
TPRV (OEL STEL) [ppm]	250 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Poland - Occupational Exposure Limits	
Local name	Propan-2-ol (izopropylowy alkohol)
NDS (OEL TWA)	900 mg/m³
NDSCh (OEL STEL)	1200 mg/m³
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	2-Propanol (isopropanol ou álcool isopropílico)
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Remark	A4 (Agente não classificável como carcinogénico no Homem); IBE (Índice biológico de exposição)
Regulatory reference	Norma Portuguesa NP 1796:2014
Portugal - Biological Exposure Indices	
Local name	2-Propanol
BEI	40 mg/l Parâmetro: Acetona - Meio: urina - Momento da amostragem: Fim do turno no fim da semana de trabalho - Notaçao: Vb (Valor basal), Ne (Não específico)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Alcool izopropilic/2-Propanol
OEL TWA	200 mg/m³
OEL TWA [ppm]	81 ppm
OEL STEL	500 mg/m³
OEL STEL [ppm]	203 ppm
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)

Isopropyl Alcohol (67-63-0)	
Romania - Biological limit values	
Local name	Alcool izopropilic
BLV	50 mg/l Indicador biologic: Acetonă - Material biologic: urină - Momentul recoltarii: sfârşit de schimb
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 584/2018)
Slovakia - Occupational Exposure Limits	
Local name	Izopropylalkohol (propán-2-ol)
NPHV (OEL TWA) [1]	500 mg/m³
NPHV (OEL TWA) [2]	200 ppm
NPHV (OEL STEL)	1000 mg/m³
NPHV (OEL STEL) [ppm]	400 ppm
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Slovenia - Occupational Exposure Limits	
Local name	propan-2-ol (izopropilalkohol; izopropanol)
OEL TWA	500 mg/m³
OEL TWA [ppm]	200 ppm
OEL STEL	1000 mg/m³
OEL STEL [ppm]	400 ppm
Remark	Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti), BAT (Biološka mejna vrednost)
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Slovenia - Biological limit values	
Local name	2-propanol
BLV	25 mg/l Parameter: aceton - Biološki vzorec: kri - Čas vzorčenja: ob koncu delovne izmene 25 mg/l Parameter: aceton - Biološki vzorec: urin - Čas vzorčenja: ob koncu delovne izmene
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	Isopropanol (Alcohol isopropílico)
VLA-ED (OEL TWA) [1]	500 mg/m³
VLA-ED (OEL TWA) [2]	200 ppm
VLA-EC (OEL STEL)	1000 mg/m³
VLA-EC (OEL STEL) [ppm]	400 ppm
Remark	VLB® (Agente químico que tiene Valor Límite Biológico), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT

Isopropyl Alcohol (67-63-0)	
Spain - Biological limit values	
Local name	Isopropanol (Alcohol isopropílico)
BLV	40 mg/l Parámetro: Acetona - Medio: Orina - Momento de muestreo: Final de la semana laboral - Notas: F (Fondo. El indicador está generalmente presente en cantidades detectables en personas no expuestas laboraboralmente. Estos niveles de fondo están considerados en el valor VLB), I (Significa que el indicador biológico es inespecífico puesto que puede encontrarse después de la exposición a otros agentes químicos)
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT
Sweden - Occupational Exposure Limits	
Local name	Isopropanol
NGV (OEL TWA)	350 mg/m³
NGV (OEL TWA) [ppm]	150 ppm
KTV (OEL STEL)	600 mg/m³
KTV (OEL STEL) [ppm]	250 ppm
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Propan-2-ol
WEL TWA (OEL TWA) [1]	999 mg/m³
WEL TWA (OEL TWA) [2]	400 ppm
WEL STEL (OEL STEL)	1250 mg/m³
WEL STEL (OEL STEL) [ppm]	500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Propanol
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	400 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	
Local name	2-PROPANOL
BEI	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: End of shift at end of workweek - Notations: B, Ns
Regulatory reference	ACGIH 2021

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

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:
Safety glasses.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses. Wear eye glasses with side protection according to EN 166.

8.2.2.2. Skin protection

Skin and body protection:
Long-sleeved apron/clothing with liquid tight type 3, protective against liquid chemicals (tested EN 14605)

Hand protection:
Protective gloves. EN 374. Butyl rubber. Break through time: ≥ 480 min. Layer thickness : >1,1 mm.

8.2.2.3. Respiratory protection

Respiratory protection:
This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Not available
Appearance	:	Clear. Viscous liquid.
Odour	:	None.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not available
Boiling point	:	> 143.3 °C
Flammability	:	Non flammable.
Explosive limits	:	Not available
Lower explosive limit (LEL)	:	Not available
Upper explosive limit (UEL)	:	Not available
Flash point	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Viscosity, dynamic	:	800 – 1200 mPa·s
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	:	1.03 g/cm³
Relative vapour density at 20 °C	:	> 1
Particle size	:	Not applicable
Particle size distribution	:	Not applicable
Particle shape	:	Not applicable
Particle aspect ratio	:	Not applicable
Particle aggregation state	:	Not applicable
Particle agglomeration state	:	Not applicable
Particle specific surface area	:	Not applicable
Particle dustiness	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Relative evaporation rate (water=1)	:	< 1

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids. Strong oxidizing agents.

10.6. Hazardous decomposition products

Aldehydes. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

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
Skin corrosion/irritation	:	Not classified
Additional information	:	Based on available data, the classification criteria are not met
Serious eye damage/irritation	:	Causes serious eye irritation.
Respiratory or skin sensitisation	:	Not classified
Additional information	:	Based on available data, the classification criteria are not met
Germ cell mutagenicity	:	Not classified
Additional information	:	Based on available data, the classification criteria are not met
Carcinogenicity	:	Not classified
Additional information	:	Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified
Additional information : Based on available data, the classification criteria are not met
STOT-single exposure : Not classified
Additional information : Based on available data, the classification criteria are not met

Synthetic amorphous silica, fumed, crystalline-free (112945-52-5)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Additional information : Based on available data, the classification criteria are not met
Aspiration hazard : Not classified
Additional information : Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful 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.

12.2. Persistence and degradability

Equipak CS 47122 Part B	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Equipak CS 47122 Part B	
Bioaccumulative potential	Not established.

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

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Avoid release to the environment.

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

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

EU restriction list (REACH Annex XVII)	
Reference code	**Applicable on**
3(b)	Equipak CS 47122 Part B ; N,N,N',N'-Tetrakis(2-hydroxypropyl)ethylenediamine
3(c)	Equipak CS 47122 Part B

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

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)
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

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

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Sources of Key data	:	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	:	None.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.

Full text of H- and EUH-statements:	
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very 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
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Eye Irrit. 2	H319	Calculation method
Aquatic Chronic 3	H412	Calculation method

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.