

	SAFETY DATA SHEET	Page : 1 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

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

1.1. Product identifier

Product form : Mixture
Trade name : AIA-PACK SUBSTRATE SET II (liquid)
Product code : 0020968
Product group : IN VITRO DIAGNOSTIC USE ONLY

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

1.2.1. Relevant identified uses

Main use category : Professional uses
Use of the substance/mixture : Laboratory use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Tosoh Europe NV
Transportstraat 4
3980 Tessenderlo
Belgium
T +32 13 66 88 30, F +32 13 66 47 49
info.raqa.eu@tosoh.com

Manufacturer

Tosoh Corporation
2-2-1 Yaesu, Chuo-ku
104-0028 Tokyo
Japan

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Extra phrases : EUH210 - Safety data sheet available on request.

	SAFETY DATA SHEET	Page : 2 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

2.3. Other hazards

Other hazards : Results of PBT and vPvB assessment : Not applicable.

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-amino-2-methylpropanol	CAS-No.: 124-68-5 EC-No.: 204-709-8 EC Index: 603-070-00-6	< 10	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Aquatic Chronic 3, H412
acetic acid ... % substance with a Community workplace exposure limit	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index: 607-002-00-6	< 10	Flam. Liq. 3, H226 Skin Corr. 1A, H314

Specific concentration limits:

Substance name	Product identifier	Specific concentration limits (%)
acetic acid ... %	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index: 607-002-00-6	(10 ≤ C < 25) Skin Irrit. 2, H315 (10 ≤ C < 25) Eye Irrit. 2, H319 (25 ≤ C < 90) Skin Corr. 1B, H314 (90 ≤ C < 100) Skin Corr. 1A, H314

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice	: First aider: Pay attention to self-protection!. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance. Treat symptomatically.
Inhalation	: Remove casualty to fresh air and keep warm and at rest. In case of doubt or persistent symptoms, consult always a physician.
Skin contact	: Remove contaminated clothing and shoes. Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician.
Eyes contact	: Rinse immediately carefully and thoroughly with eye-bath or water. In case of doubt or persistent symptoms, consult always a physician.

	SAFETY DATA SHEET	Page : 3 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

Ingestion : Rinse mouth thoroughly with water. Get medical advice/attention.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Inhalation : May be harmful if inhaled. May cause respiratory irritation.

Skin contact : May be harmful if absorbed through skin. May cause skin irritation.

Eyes contact : May cause eye irritation.

Ingestion : May be harmful if swallowed.

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

No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : carbon dioxide (CO2), powder, alcohol-resistant foam, water spray.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards : Not flammable. Heating will cause a rise in pressure with a risk of bursting.

Hazardous decomposition products in case of fire : Unknown.

5.3. Advice for firefighters

Firefighting instructions : Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.

Other information : Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel : Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

	SAFETY DATA SHEET	Page : 4 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Dam up the liquid spill. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Recover large spills by pumping (use an explosion proof or hand pump). Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Avoid release to the environment.

Hygiene measures : Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Do not store near or with any of the incompatible materials listed in section 10. Bund storage facilities to prevent soil and water pollution in the event of spillage. Recommended storage temperature : 2-8°C.

Packaging materials : Keep only in the original container.

Switzerland

Storage class (LK) : LK 10/12 - Liquids

7.3. Specific end use(s)

No data available.

	SAFETY DATA SHEET	Page : 5 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

2-amino-2-methylpropanol (124-68-5)	
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	2-Amino-2-methyl-1-propanol (AMP)
Occupational exposure limit value (mg/m ³) (TRGS900)	3,7 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Occupational exposure limit value (ppm) (TRGS900)	1 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Peak exposure limitation factor	2(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); H - hautresorptiv; Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden; 11 - Summe aus Dampf und Aerosolen
Chemical category	Skin notation
Regulatory reference	TRGS900
Slovenia - Occupational Exposure Limits	
Local name	2-amino-2-metil-1-propanol (AMP)
OEL TWA	3,7 mg/m ³
	1 ppm
OEL STEL	7,4 mg/m ³
	2 ppm
Remark	K (Lastnost lažjega prehajanja snovi v organizem skozi kožo), Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti)
OEL chemical category	Potential for cutaneous absorption
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Switzerland - Occupational Exposure Limits	
Local name	2-Amino-2-méthylpropanol [AMP] / 2-Amino-2-methyl-1-propanol [AMP]
MAK (OEL TWA)	8,7 mg/m ³
	2,4 ppm
KZGW (OEL STEL)	17,4 mg/m ³
	4,8 ppm
Notation	R, SS _c / H, SS _c
Remark	La substance peut être présente sous forme de vapeur et d'aérosol en même temps / Der Stoff kann gleichzeitig als Dampf und Aerosol vorliegen
OEL chemical category	Skin notation

	SAFETY DATA SHEET	Page : 6 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

2-amino-2-methylpropanol (124-68-5)	
Regulatory reference	www.suva.ch, 01.01.2024

acetic acid ... % (64-19-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Acetic acid
IOEL TWA	25 mg/m ³
	10 ppm
IOEL STEL	50 mg/m ³
	20 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
Albania - Occupational Exposure Limits	
Local name	Acid acetik
OEL TWA	25 mg/m ³
	10 ppm
Regulatory reference	VENDIM Nr. 522, datë 6.8.2014 PËR MIRATIMIN E RREGULLORES “PËR MBROJTJEN E SIGURISË DHE SHËNDETIT TË PUNËMARRËSVE NGA RISQET E LIDHURA ME AGJENTËT KIMIKË NË PUNË”
Austria - Occupational Exposure Limits	
Local name	Essigsäure
MAK (OEL TWA)	25 mg/m ³
	10 ppm
MAK (OEL STEL)	50 mg/m ³
	20 ppm
Regulatory reference	BGBl. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Acide acétique # Azijnzuur
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	38 mg/m ³
	15 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023
Bulgaria - Occupational Exposure Limits	
Local name	Оцетна киселина
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	50 mg/m ³
	20 ppm

	SAFETY DATA SHEET	Page : 7 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
Remark	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
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	Octena kiselina
GVI (OEL TWA)	25 mg/m ³
	10 ppm
KGVI (OEL STEL)	50 mg/m ³
	20 ppm
Remark	Direktiva: 2017/164/EU
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 148/2023)
Cyprus - Occupational Exposure Limits	
Local name	Οξικό οξύ
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	50 mg/m ³
	20 ppm
Regulatory reference	Κανονισμοί του 2019 (Κ.Δ.Π. 16/2019)
Czech Republic - Occupational Exposure Limits	
Local name	Kyselina octová (Kyselina ethanová)
PEL (OEL TWA)	25 mg/m ³
	10 ppm
NPK-P (OEL C)	50 mg/m ³
	20 ppm
Remark	I - dráždí sliznice (oči, dýchací cesty) resp. kůže.
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (Předpis 330/2023 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Eddikesyre (Ethansyre)
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	50 mg/m ³
	20 ppm
Remark	E (betyder, at stoffet har en EF-grænseværdi)
Regulatory reference	BEK nr 202 af 21/02/2023

	SAFETY DATA SHEET	Page : 8 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
Estonia - Occupational Exposure Limits	
Local name	Etaanhape (äädikhape)
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	25 mg/m ³
	10 ppm
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 21.12.2022, 3)
Finland - Occupational Exposure Limits	
Local name	Etikkahappo
HTP (OEL TWA)	13 mg/m ³
	5 ppm
HTP (OEL STEL)	25 mg/m ³
	10 ppm
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveystieteiden ministeriö)
France - Occupational Exposure Limits	
Local name	Acide acétique
VME (OEL TWA)	25 mg/m ³ (restrictive limit)
	10 ppm (restrictive limit)
VLE (OEL C/STEL)	50 mg/m ³ (indicative limit)
	20 ppm (indicative limit)
Remark	Valeurs réglementaires indicatives
Regulatory reference	Arrêté du 30 juin 2004 modifié (réf.: INRS ED 6443, 2022; Outil65; Arrête du 27 septembre 2019)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Essigsäure
Occupational exposure limit value (mg/m ³) (TRGS900)	25 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Occupational exposure limit value (ppm) (TRGS900)	10 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Peak exposure limitation factor	2(I)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); EU - Europäische Union (Von der EU wurde ein Luftgrenzwert festgelegt: Abweichungen bei Wert und Spitzenbegrenzung sind möglich); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900
Gibraltar - Occupational Exposure Limits	
Local name	Acetic acid

	SAFETY DATA SHEET	Page : 9 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	50 mg/m ³
	20 ppm
Regulatory reference	Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181)
Greece - Occupational Exposure Limits	
Local name	Οξικό οξύ
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	37 mg/m ³
	15 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	ECETSAV
AK (OEL TWA)	25 mg/m ³
CK (OEL STEL)	50 mg/m ³
Remark	m (maró hatású anyag, amely felmarja a bőrt, nyálkahártyát, szemet vagy mindhármat); EU4 (2017/164 EU irányelvben közölt érték); N (Irritáló anyagok, egyszerű fojtógázok, csekély egészségkárosító hatással bíró anyagok)
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	Acetic acid
OEL TWA	50 mg/m ³
	20 ppm
OEL STEL	50 mg/m ³
	20 ppm
Remark	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2021
Italy - Occupational Exposure Limits	
Local name	Acido acetico
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	37 mg/m ³
	15 ppm

	SAFETY DATA SHEET	Page : 10 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
Latvia - Occupational Exposure Limits	
Local name	Etiķskābe (etānskābe)
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	50 mg/m ³
	20 ppm
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2018. gada 10. jūlijā noteikumiem Nr. 407)
Lithuania - Occupational Exposure Limits	
Local name	Acto rūgštis
IPRV (OEL TWA)	25 mg/m ³
	10 ppm
TPRV (OEL STEL)	50 mg/m ³
	20 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Luxembourg - Occupational Exposure Limits	
Local name	Acide acétique
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	50 mg/m ³
	20 ppm
Regulatory reference	Mémorial A N° 226 de 2021 concernant la protection de la sécurité et de la santé des salariés contre les risques liés à des agents chimiques sur le lieu de travail
Malta - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	50 mg/m ³
	20 ppm
Regulatory reference	S.L.424.24 - Chemical Agents at Work Regulations (L.N.356 of 2021)
Netherlands - Occupational Exposure Limits	
Local name	Azijnzuur (ethaanzuur)
TGG-8u (OEL TWA)	25 mg/m ³
	10 ppm
TGG-15min (OEL STEL)	50 mg/m ³

	SAFETY DATA SHEET	Page : 11 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
	20 ppm
Regulatory reference	Arbeidsomstandighedenregeling 2024
Poland - Occupational Exposure Limits	
Local name	Kwas octowy
NDS (OEL TWA)	25 mg/m ³
NDSch (OEL STEL)	50 mg/m ³
Regulatory reference	Dz. U. 2018 poz. 1286 wraz z późn. zm.
Portugal - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ácido acético
IOEL TWA	25 mg/m ³
	10 ppm
IOEL STEL	50 mg/m ³
	20 ppm
Regulatory reference	Decreto-Lei n.º 1/2021 de 6 de janeiro
Portugal - Occupational Exposure Limits	
Local name	Ácido acético
OEL TWA	25 mg/m ³ (indicative limit value)
	10 ppm (indicative limit value)
OEL STEL	50 mg/m ³ (indicative limit value)
	20 ppm (indicative limit value)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Acid acetic
OEL TWA	25 mg/m ³ (for gaseous or vapor phase chemicals, the limit value is expressed at 20°C and 101.3 kPa)
	10 ppm
OEL STEL	50 mg/m ³ (for gaseous or vapor phase chemicals, the limit value is expressed at 20°C and 101.3 kPa)
	20 ppm
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)
Serbia - Occupational Exposure Limits	
Local name	сирћетна киселина
OEL TWA	25 mg/m ³
	20 mg/m ³
	50 mg/m ³
	10 ppm

	SAFETY DATA SHEET	Page : 12 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
Remark	EУ**** – напомена да се ради о хемијским материјама за које су утврђене индикативне граничне вредности изложености према Директиви 2017/164/ЕУ (четврта листа)
Regulatory reference	ПРАВИЛНИК о превентивним мерама за безбедан и здрав рад при излагању хемијским материјама („Службени гласник РС”, бр. 106/09, 117/17 и 107/21)
Slovakia - Occupational Exposure Limits	
Local name	Kyselina octová (kyselina etánová)
NPHV (OEL TWA)	25 mg/m³
	10 ppm
NPHV (OEL STEL)	50 mg/m³
	20 ppm
NPHV (OEL C)	50 mg/m³
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Slovenia - Occupational Exposure Limits	
Local name	ocetna kislina
OEL TWA	25 mg/m³
	10 ppm
OEL STEL	50 mg/m³
	20 ppm
Remark	Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti), EU
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	Ácido acético
VLA-ED (OEL TWA)	25 mg/m³
	10 ppm
VLA-EC (OEL STEL)	50 mg/m³
	20 ppm
Remark	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2024. INSHT
Sweden - Occupational Exposure Limits	
Local name	Ättiksyra
NGV (OEL TWA)	13 mg/m³
	5 ppm
KGV (OEL STEL)	25 mg/m³

	SAFETY DATA SHEET	Page : 13 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
	10 ppm
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Acetic acid
WEL TWA (OEL TWA)	25 mg/m ³
	10 ppm
WEL STEL (OEL STEL)	50 mg/m ³
	20 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	Ediksýra
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	50 mg/m ³
	20 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 1069/2018)
Norway - Occupational Exposure Limits	
Local name	Eddiksyre
Grenseverdi (OEL TWA)	25 mg/m ³
	10 ppm
Korttidsverdi (OEL STEL)	50 mg/m ³ (value from the regulation)
	20 ppm (value from the regulation)
Remark	A: Kjemikalier som skal betraktes som at de fremkaller allergi eller annen overfølsomhet i øynene eller luftveier, eller som skal betraktes som at de fremkaller allergi ved hudkontakt; E: EU har en veiledende grenseverdi og/eller anmerkning for stoffet.
OEL chemical category	Allergenic substance
Regulatory reference	FOR-2023-12-18-2278
North Macedonia - Occupational Exposure Limits	
Local name	Оцетна киселина
OEL TWA	25 mg/m ³
	10 ppm
Remark	(EU) European Union – гранична вредност, определена на ниво на Европската унија
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)

	SAFETY DATA SHEET	Page : 14 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
Switzerland - Occupational Exposure Limits	
Local name	Acide acétique / Essigsäure
MAK (OEL TWA)	25 mg/m ³
	10 ppm
KZGW (OEL STEL)	50 mg/m ³
	20 ppm
Notation	SS _c / SS _c
Remark	NIOSH, OSHA
Regulatory reference	www.suva.ch, 01.01.2024
USA - ACGIH - Occupational Exposure Limits	
Local name	Acetic acid
ACGIH OEL TWA	10 ppm
ACGIH OEL STEL	15 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr; pulm func
Regulatory reference	ACGIH 2024

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Concentration measurement in air. Personal air monitoring .

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Additional information : Recommended monitoring procedures :. Personal air monitoring. Room air monitoring

8.1.5. Control banding

No additional information available

8.2. Exposure controls

Engineering measure(s) : Provide adequate ventilation. Organisational measures to prevent/limit releases, dispersion and exposure. See Section 7 for information on safe handling .

Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

	SAFETY DATA SHEET	Page : 15 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

Hand protection	: Wear chemically resistant gloves (tested to EN374) . The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Eye protection	: Use suitable eye protection (EN166): Safety glasses with side shields
Body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (DIN EN 140). full face mask (DIN EN 136). Filter type: A (EN14387). The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
Thermal hazard protection	: Not required for normal conditions of use. Use dedicated equipment.
Environmental exposure controls	: Avoid release to the environment. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No additional information available.
Appearance	: Liquid.
Odour	: No data available.
Odour threshold	: No additional information available
Melting / freezing point	: No additional information available
Freezing point	: Not available
Initial boiling point and boiling range	: No additional information available
Flammability	: Not flammable
Explosive properties	: Not applicable.
Oxidising properties	: Not applicable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: No additional information available
Auto-ignition temperature	: No additional information available
Decomposition temperature	: No additional information available
pH	: 10,2
Kinematic viscosity	: No data available
Dynamic viscosity	: No data available
Solubility	: Water: No additional information available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water	: No additional information available
Vapour pressure	: No additional information available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1,0026
Vapour density	: No additional information available
Particle characteristics	: Not applicable

	SAFETY DATA SHEET	Page : 16 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

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 (butylacetate=1) : No additional information available

Additional information : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reference to other sections 10.4 & 10.5.

10.2. Chemical stability

Stable under recommended storage conditions. (2-8°C). Observe the expiry date.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

See Section 7 for information on safe handling.

10.5. Incompatible materials

See Section 7 for information on safe handling.

10.6. Hazardous decomposition products

Reference to other sections 5.2.

SECTION 11: Toxicological information

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

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

2-amino-2-methylpropanol (124-68-5)	
LD50/oral/rat	2900 mg/kg
LD50/dermal/rabbit	> 2000 mg/kg

acetic acid ... % (64-19-7)	
LD50/oral/rat	3310 mg/kg (Source: JAPAN_GHS)
LD50/dermal/rabbit	1060 mg/kg (Source: JAPAN_GHS)
LC50/inhalation/4h/rat	11,4 mg/l/4h

	SAFETY DATA SHEET	Page : 17 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

acetic acid ... % (64-19-7)	
LC50, Inhalation, mouse	5620 ppm

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 10,2

2-amino-2-methylpropanol (124-68-5)	
pH	11,3 (conc: 0.1 M (aqueous solution))

acetic acid ... % (64-19-7)	
pH	2,4 (conc: 1 M (aqueous solution))

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 10,2

2-amino-2-methylpropanol (124-68-5)	
pH	11,3 (conc: 0.1 M (aqueous solution))

acetic acid ... % (64-19-7)	
pH	2,4 (conc: 1 M (aqueous solution))

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

2-amino-2-methylpropanol (124-68-5)	
LOAEL (oral, rat, 90 days)	> 2,8 mg/kg bodyweight/day species: Dog - exposure time: 52 Weeks

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

AIA-PACK SUBSTRATE SET II (liquid)	
Kinematic viscosity	No data available

	SAFETY DATA SHEET	Page : 18 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

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

11.2.2. Other information

Other information

: Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties

: According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

Hazardous to the aquatic environment, short-term (acute)

: Not classified

Hazardous to the aquatic environment, long-term (chronic)

: Not classified

2-amino-2-methylpropanol (124-68-5)

LC50 - Fish [1]	190 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	179 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	402 mg/l (Species: Desmodesmus subspicatus)
ErC50 other aquatic plants	342,9 mg/l exposure time: 3h

acetic acid ... % (64-19-7)

LC50 - Fish [1]	79 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
LC50 - Fish [2]	75 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
EC50 - Crustacea [1]	65 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 - Crustacea [2]	65 mg/l 48 h

12.2. Persistence and degradability

AIA-PACK SUBSTRATE SET II (liquid)

Persistence and degradability	No additional information available.
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2-amino-2-methylpropanol (124-68-5)

Biodegradation	89,3 % exposure time: 28d
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	SAFETY DATA SHEET	Page : 19 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

12.3. Bioaccumulative potential

AIA-PACK SUBSTRATE SET II (liquid)	
Partition coefficient n-octanol/water	No additional information available
Bioaccumulative potential	No additional information available.

2-amino-2-methylpropanol (124-68-5)	
BCF - Fish [1]	< 1
Partition coefficient n-octanol/water	-0,63

acetic acid ... % (64-19-7)	
Partition coefficient n-octanol/water	-0,17 (at 25 °C (at pH 7)

12.4. Mobility in soil

AIA-PACK SUBSTRATE SET II (liquid)	
Mobility in soil	No additional information available
Ecology - soil	No data available.

12.5. Results of PBT and vPvB assessment

AIA-PACK SUBSTRATE SET II (liquid)	
Results of PBT assessment	Not applicable

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Additional information : No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Avoid release to the environment. Dispose of empty containers and wastes safely. See Section 7 for information on safe handling. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities

	SAFETY DATA SHEET	Page : 20 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

SECTION 14: Transport information

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

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
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
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

Special precautions for user : No data available

- 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

Code: IBC : No data available.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

This safety datasheet has been prepared :Not applicable.
according to Polish legislation.

	SAFETY DATA SHEET	Page : 21 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	acetic acid ... %	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	acetic acid ... %	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
40.	acetic acid ... %	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

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 (EU 1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

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

Drug Precursors Regulation (273/2004)

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

Detergent Regulation (648/2004/EC): Labelling of contents

15.1.2. National regulations

	SAFETY DATA SHEET	Page : 22 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

France

Installations classées			
No ICPE	Désignation de la rubrique	Code Régime	Rayon
na	Not Applicable	na	na

No ICPE

Germany

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

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

Technical Instructions on Air Quality Control (TA Luft) : Total dust.

Netherlands

Waterbezwaarlijkheid : B (4) - Weinig schadelijk voor in het water levende organismen

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

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

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

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

15.2. Chemical safety assessment

Not applicable

For the following substances of this mixture a chemical safety assessment has been carried out
acetic acid ... %

SECTION 16: Other information

Indication of changes:

1.3	Details of the supplier of the safety data sheet	Modified	
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Abbreviations and acronyms:

ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods Code
LEL = Lower Explosive Limit/Lower Explosion Limit
UEL = Upper Explosive Limit/Upper Explosion Limit
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
DNEL = DNEL = Derived No Effect Level
LD50 = Median lethal dose
N.O.S. = Not Otherwise Specified
PNEC = Predicted No Effect Concentration
STEL = Short term exposure limit
TLV = Threshold limits
TWA = time weighted average
WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

	SAFETY DATA SHEET	Page : 23 / 23
		Revision nr : 2.0
		Issue date : 23/04/2024
	AIA-PACK SUBSTRATE SET II (liquid)	Supersedes : 19/02/2021

Sources of key data used to compile the datasheet : Additional information. Supplier.

Training advice : Training staff on good practice.

Other information : Classification - Assessment method: CLP Calculation method (Article 9).
Physicochemical hazard assessment: Information given is based on tests on the mixture itself.

Full text of H- and EUH-statements:

Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH210	Safety data sheet available on request.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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