

Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 1 / 13

Safety Data Sheet

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

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

1.1. Product identifier

Product name Permabond Initiator 43

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

Intended use Adhesive

Identified Uses Industrial Professional Consumer
Use -

1.3. Details of the supplier of the safety data sheet

Name Permabond Engineering Adhesives
Full address Niederkasseler Lohweg 18
District and Country 40547 Düsseldorf
Germany

Tel. +44 (0)1962 711 661

e-mail address of the competent person responsible for the Safety Data Sheet

esponsible for the Safety Data Sheet info.europe@permabond.com

Supplier: Permabond Engineering Adhesives Ltd

Wessex Way, Colden Common, Winchester, Hampshire SO21 1WP, UK

tel: +44 (0)1962 711 661

mail: info.europe@permabond.com

1.4. Emergency telephone number

For urgent inquiries refer to +44 (0)1962 711 661 (8.00 am-5.00 pm Mon-Fri)

CHEMTREC UK: +(44)-870-8200418
CHEMTREC Ireland: +(353)-19014670
CHEMTREC Australia: +(61)-290372994
CHEMTREC New Zealand: +(64)-98010034

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

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

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

Hazard classification and indication:

Eye irritation, category 2 H319 Causes serious eye irritation.

Hazardous to the aquatic environment, chronic H412 Harmful to aquatic life with long lasting effects.

toxicity, category 3

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:





Permabond Engineering Adhesives

Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 2 / 13

SECTION 2. Hazards identification .../>>

Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

EUH208 Contains: NAPHTHENIC ACID

NAPHTHENIC ACIDS, COPPER SALTS

May produce an allergic reaction.

Precautionary statements:

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.

2.3. Other hazards

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

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification x = Conc. % Classification (EC) 1272/2008 (CLP)

(2,2-DIMETHYL-1,3-DIOXOLAN-4-YL)METHYL METHACRYLATE

INDEX $60 \le x < 100$ Eye Irrit. 2 H319

EC 230-408-6 CAS 7098-80-8

REACH Reg. 01-2120763241-62-XXXX

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

INDEX $1 \le x < 5$ Asp. Tox. 1 H304

EC 918-481-9

CAS

REACH Reg. 01-2119457273-39-XXXX

COPPER 2-ETHYLHEXANOATE

INDEX 0,1 ≤ x < 1 Repr. 2 H361d, Acute Tox. 4 H302, Eye Dam. 1 H318, Aquatic Acute 1 H400

M=10, Aquatic Chronic 2 H411 STA Oral: 500 mg/kg

EC 244-846-0 CAS 22221-10-9

REACH Reg. 01-2120789200-58-XXXX

NAPHTHENIC ACIDS, COPPER SALTS

INDEX 029-003-00-5 0,25 \leq x < 1 Flam. Liq. 3 H226, Acute Tox. 4 H302, Skin Sens. 1 H317, Aquatic Acute 1

H400 M=1, Aquatic Chronic 1 H410 M=1 STA Oral: 500 mg/kg

EC 215-657-0 CAS 1338-02-9

REACH Reg. 01-2120796341-51-0000

2-Ethylsanoic acid

INDEX 607-230-00-6 $0,1 \le x < 1$ Repr. 2 H361d

EC 205-743-6 CAS 149-57-5

REACH Reg. 01-2119488942-23-XXXX

NAPHTHENIC ACID

INDEX 0,1 ≤ x < 1 Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317

EC 215-662-8 CAS 1338-24-5

REACH Reg. 01-2119552477-31-XXXX

EPY 11.5.2 - SDS 1004.14



Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 3 / 13

SECTION 3. Composition/information on ingredients

COPPER (II) ACETATE

INDEX 0,1 ≤ x < 1 Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1

STA Oral: 500 mg/kg

H400 M=10, Aquatic Chronic 2 H411

EC 205-553-3 CAS 142-71-2

REACH Reg. 01-2119980669-16-XXXX

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

SECTION 4. First aid measures

4.1. Description of first aid measures

Skin: Wash the skin thoroughly with soap and water. If symptoms arise, request

medical assistance

Eyes: Make sure you have removed any contact lenses before rinsing your eyes. Wash

Readyly and abundantly the eyes with water keeping the eyelids open.

Continue to rinse for at least 15 minutes. Consult a doctor if the discomfort continues.

Ingestion: rinse the mouth with water thoroughly. Make a abundant quantity of water drink.

Do not cause vomiting. Consult a doctor.

Inhalation: move the subject exposed in the open air. Consult a doctor in case of serious symptoms or

persistent.

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

Contact with the skin: skin irritation. Mild dermatitis, allergic rash. Contact with eyes: irritating and can cause redness and pain.

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

Note for the doctor no specific recommendation. Symptomatic treatment.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS DUE TO EXPOSURE IN THE EVENT OF FIRE

Avoid breathing combustion products, carbon monoxide (CO), carbon dioxide (CO2), and nitric oxides (NOx).

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions



Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 4 / 13

SECTION 6. Accidental release measures .../>>

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Adhesive

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 2020:25
LTU	Lietuva	Jsakymas dėl lietuvos higienos normos hn 23:2011 "cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai" patvirtinimo
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)



Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 5 / 13

SECTION 8. Exposure controls/personal protection

				DUTUENIO 4 O		041.70			
			NA	PHTHENIC ACI	DS, COPPER	SALTS			
Threshold Limit Va	alue								
Туре	ype Country TWA/8h			STEL/15r	min	Remarks / Obs	ervations		
		mg/m3	ppm	mg/m3	ppm				
HTP	FIN	2							
Predicted no-effec	t concentrat	ion - PNEC	;						
Normal value in	fresh water						0,00604	mg/l	
Normal value in	marine water						0,0006	mg/l	
Normal value for	r fresh water	sediment					30,2	mg/kg/d	
Normal value for	r marine wate	r sediment					3,02	mg/kg/d	
Normal value of	STP microorg	ganisms					0,14	mg/l	
Normal value for	r the terrestria	al compartm	ent				6,03	mg/kg/d	
lealth - Derived n	o-effect leve	I - DNEL / D	MEL						
	Effect	ts on consu	mers			Effects on worke	rs		
Route of exposu	ire Acute	e Acu	te	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	syst	emic	local	systemic	local	systemic	local	systemic
Oral		•			0,18		•		•
					mg/kg bw/d				
Inhalation					0,16				0,63
					mg/m3				mg/m3
Skin					0,18				0,36
					mg/kg bw/d				mg/kg
					0 0				bw/d

				2-Ethyl	sanoic acid				
hreshold Limit Valu	e								
Type C	ountry	TWA/8h		STEL/15	min	Remarks /	Observations		
		mg/m3	ppm	mg/m3	ppm				
VLA E	SP	5							
Predicted no-effect c	oncentra	tion - PNEC							
Normal value in fre	sh water						0,398	mg/l	
Normal value in ma	arine water	r					0,04	mg/l	
Normal value for fre	esh water	sediment					4,74	mg/kg/d	
Normal value for m	arine wate	er sediment					0,474	mg/kg/d	
Normal value of ST	P microor	ganisms					71,7	mg/l	
Normal value for th	e terrestria	al compartm	ent				0,712	mg/kg/d	
lealth - Derived no-e	effect leve	I - DNEL / D	MEL						
	Effec	ts on consu	mers			Effects on w	orkers		
Route of exposure	Acute	e Acu	te	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	syst	emic	local	systemic	local	systemic	local	systemic
Oral					1				
					mg/kg bw/d				
Inhalation					3,5				14
					mg/m3				mg/m3
Skin					1		2		2
					mg/kg bw/d				mg/kg
									bw/d



Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 6 / 13

SECTION 8. Exposure controls/personal protection/

				COPPER	(II) ACETATE				
reshold Limit	Value								
Type	Country	TWA/8h		STEL/15min		Remarks /	Observations		
		mg/m3	ppm	mg/m3	ppm				
TLV	BGR	1					като мед		
VLA	ESP	0,01				RESP	Como Cu		
HTP	FIN	0,02				RESP	Som Cu		
RD	LTU	1				INHAL	Kaip Cu		
RD	LTU	0,2				RESP	Kaip Cu		
NGV/KGV	SWE	0,01				RESP	Som Cu		
NPEL	SVK	1				INHAL	Ako Cu		
NPEL	SVK	0,2				RESP	Ako Cu		
MV	SVN	1		4		INHAL			
WEL	GBR	1		2			As Cu		
edicted no-eff	ect concentr	ation - PNE	C						
Normal value	in fresh water						0,0078	mg/l	
Normal value	in marine wat	er					0,0052	mg/l	
Normal value	for fresh wate	r sediment					87	mg/kg/d	
Normal value	for marine wa	ter sediment					676	mg/kg/d	
Normal value	of STP micro	organisms					0,23	mg/l	
Normal value	for the terrest	rial compartr	nent				65	mg/kg/d	
ealth - Derived	no-effect lev	rel - DNEL /	DMEL						
	Effe	ects on consu	ımers			Effects on w	orkers		
Route of expo	sure Acu	ite Aci	ute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	loca	al sys	temic	local	systemic	local	systemic	local	systemic
Oral		•			0.041		•		0.082
					mg/kg bw/d				mg/kg
									bw/d
Inhalation								1	1
								mg/m3	mg/m3
Skin								-	137
									mg/kg
									bw/d

			COPPER 2-E	THYLHEXANO	ATE					
Predicted no-effect con	ncentration	- PNEC								
Normal value in fresh	water					0,041	mg/l			
Normal value in marir	ne water					0,027	mg/l			
Normal value for fresh	h water sedi	ment				457,9	mg/kg/d			
Normal value for mari	ine water se	diment				3557,9	mg/kg/d			
Normal value of STP	microorgani	sms				1,21	mg/l			
Normal value for the t	terrestrial co	mpartment				342,1	mg/kg/d			
Health - Derived no-effe	ect level - D	NEL / DMEL								
	Effects or	consumers			Effects on workers					
Route of exposure	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic		
	local	systemic	local	systemic	local	systemic	local	systemic		
Oral				0,2						
				mg/kg bw/d						
Inhalation				0,17				0,69		
				mg/m3				mg/m3		
Skin				0,2				0,39		
				mg/kg bw/d				mg/kg		
								bw/d		



Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 7 / 13

SECTION 8. Exposure controls/personal protection

			NAPH'	THENIC ACID					
redicted no-effect co	ncentration	- PNEC	10.0.11						
Normal value in fresh	water					0,0056	mg/l		
Normal value in mari	ne water					0,00056	mg/l		
Normal value for fres	h water sed	iment				28,2	mg/kg/d		
Normal value for mar	ine water se	ediment				2,82	mg/kg/d		
Normal value of STP	microorgan	isms				0,13	mg/l		
Normal value for the	terrestrial co	ompartment				5,61	mg/kg/d		
ealth - Derived no-eff	ect level - C	NEL / DMEL					2 0		
	Effects o	n consumers		Effects on workers					
Route of exposure	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic	
	local	systemic	local	systemic	local	systemic	local	systemic	
Oral				1,51					
				mg/kg bw/d					
Inhalation				5,25				21,3	
				mg/m3				mg/m3	
Skin				7,55				15,1	
				mg/kg bw/d				mg/kg	
								bw/d	

Legend:

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

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low

hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529. ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties Value Information
Appearance liquid

Colour green
Odour characteristic
Melting point / freezing point not available



Permabond Initiator 43

Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 8 / 13

SECTION 9. Physical and chemical properties

Initial boiling point not available Flammability not available Lower explosive limit not available Upper explosive limit not available Flash point 100 °C Auto-ignition temperature not available Decomposition temperature not available not available

not available Kinematic viscosity Dynamic viscosity ~10 mPa.s Solubility not available Partition coefficient: n-octanol/water not available not available Vapour pressure

Density and/or relative density

Relative vapour density not available Particle characteristics not applicable (in water)

Reason for missing data:substance/mixture is

Temperature: 25 °C

non-soluble

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

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

10.5. Incompatible materials

Strong reducing and oxidizing agents.

10.6. Hazardous decomposition products

By thermal decomposition, carbon monoxide, carbon dioxide and ed other unidentified organic compounds.

SECTION 11. Toxicological information

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

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

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available



Permabond Engineering Adhesives

Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 9 / 13

SECTION 11. Toxicological information .../>>

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:

ATE (Oral) of the mixture:

ATE (Oral) of the mixture:

ATE (Dermal) of the mixture:

Not classified (no significant component)

Not classified (no significant component)

(2,2-DIMETHYL-1,3-DIOXOLAN-4-YL)METHYL METHACRYLATE LD50 (Oral): > 2000 mg/kg

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
NAPHTHENIC ACID

NAPHTHENIC ACIDS, COPPER SALTS

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

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



Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 10 / 13

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

(2,2-DIMETHYL-1,3-DIOXOLAN-4-YL)METHYL METHACRYLATE
EC50 - for Crustacea > 120 mg/l/48h
EC50 - for Algae / Aquatic Plants 402 mg/l/72h

12.2. Persistence and degradability

COPPER (II) ACETATE

Solubility in water > 10000 mg/l

Degradability: information not available

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

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

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

08 04 09* stickers and sealed sealing, containing organic solvents or other dangerous substances

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable



Permabond Engineering Adhesives

Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 11 / 13

SECTION 14. Transport information .../>>

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

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

Product

Point 3 - 40

Contained substance

Point 75

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

not applicable

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

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

WGK 3: Severe hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.



Permabond Engineering Adhesives

Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 12 / 13

SECTION 16. Other information

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

Flam. Liq. 3 Flammable liquid, category 3 Reproductive toxicity, category 2 Repr. 2 Acute Tox. 4 Acute toxicity, category 4 Aspiration hazard, category 1 Asp. Tox. 1 Skin Corr. 1B Skin corrosion, category 1B Eve Dam. 1 Serious eve damage, category 1 Eye Irrit. 2 Eye irritation, category 2 Skin Irrit. 2 Skin irritation, category 2 Skin Sens. 1 Skin sensitization, category 1

Aquatic Acute 1

Aquatic Chronic 1

Aquatic Chronic 2

Aquatic Chronic 3

Hazardous to the aquatic environment, acute toxicity, category 1

Hazardous to the aquatic environment, chronic toxicity, category 2

Hazardous to the aquatic environment, chronic toxicity, category 2

Hazardous to the aquatic environment, chronic toxicity, category 3

H226 Flammable liquid and vapour.

H361d Suspected of damaging the unborn child.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)



Permabond Initiator 43

Revision nr.1 Dated 26/07/2023 First compilation Printed on 26/07/2023 Page n. 13 / 13

SECTION 16. Other information .../>>

- 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2019/521 (XII Atp. CLP)
- 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
- 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.