Security data sheet



Product:	792
Manufacturer:	PERMABOND ENGINEERING ADHESIVES
Product group:	KLEBSTOFF
Article group:	CYANACRYLAT
Download:	14.03.2025

# PERMABOND 792

This data sheet was provided to you by Tewipack Uhl GmbH. The company tewipack Uhl GmbH assumes no responsibility for the topicality and the Accuracy of the information contained. The properties of the products can vary due to various influences such as composition and condition of the Substrate, impurities in or on the substrate, temperature and humidity at the Change storage and environmental conditions during use. Using this product in combination with other material, the customer is responsible for to check through our own tests whether the product is suitable for the planned combination and whether this combination delivers the expected results

Tewipack Uhl GmbH Industriestraße 15 D-75382 Althengstett

Telephone: E-Mail: +49(0)7051/9297-0 Fax Website: +49(0)7051/9297-99 www.tewipack.de

info@tewipack.de

Managing director: Alexander Uhl, Michael Uhl HRB 330424 Amtsgericht Stuttgart

Bank details: Sparkasse Pforzheim Calw BLZ 666 500 85 Konto 17 787 Commerzbank Sindelfingen BLZ 603 400 71 Konto 8 001 166

Vereinigte Volksbank AG Böblingen BLZ 603 900 00 Konto 80 089 003

Postbank Stuttgart BLZ 600 100 70 Konto 146 294 708

	Permabond Er	ngineering Adhesives	Revision nr.1 Dated 19/01/2023	E
Permabond Engineering Adhesives	Perm	abond 792	First compilation Printed on 16/02/2023 Page n. 1 / 10	
		Safety Data Sheet		
		EACH - Regulation 2020/878 and to Annex II t	o UK REACH	
SECTION 1. Identific	ation of the substanc	e/mixture and of the company/	undertaking	
1.1. Product identifier				
Product name	Perm	nabond 792		
1.2. Relevant identified use	s of the substance or mixture	and uses advised against		
Intended use	Adhe	esive		
1.3. Details of the supplier of	f the safety data sheet			
Name Full address District and Country		nabond Engineering Adhesives erkasseler Lohweg 18 7 Düsseldorf Germany +44 (0)1962 711 661		
e-mail address of the com responsible for the Safety	•	europe@permabond.com		
Supplier:	Wess Winc tel:	nabond Engineering Adhesives Ltd sex Way, Colden Common, chester, Hampshire SO21 1WP, UK +44 (0)1962 711 661 t info.europe@permabond.com		
1.4. Emergency telephone r	umber			
For urgent inquiries refer t	o +44 (	0)1962 711 661 ( 8.00 am-5.00 pm Mon-F	ri)	
	CHE	MTREC UK: +(44)-870-8200418 MTREC Ireland: +(353)-19014670 MTREC Australia: +(61)-290372994		

## 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.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.

## 2.2. Label elements

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

Hazard pictograms:





Permabond Engineering Adhesives

Permabond 792

## SECTION 2. Hazards identification ..../>>

Signal words:	Warning
Hazard statements:	
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
Precautionary statements:	
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P302+P352	In case of contact with the skin: wash abundantly with soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Contains:	ethyl 2-cyanoacrylate

## 2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration  $\ge 0.1\%$ .

## **SECTION 3. Composition/information on ingredients**

#### 3.2. Mixtures

#### Contains:

Identification		x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>ethyl 2-cyan</b> INDEX EC CAS REACH Reg.	oacrylate 607-236-00-9 230-391-5 7085-85-0 01-2119527766-2	60 ≤ x < 100 9-XXXX	Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, EUH202 STOT SE 3 H335: ≥ 10%

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: contact with the product, the skin will stick to itself and to anything else immediately. Do not try to remove the contaminated clothing in the product from the skin, because the tight skin can easily tear. Wash the skin thoroughly with water and soap. Consult a doctor immediately. Eyes: rinse immediately and abundantly with water. Continue to rinse for at least 10 minutes. In case of gluing with sticker, do not forcefully separate the eyelids. Apply a buffer soaked in hot water and allow the eyelids to separate. Consult a doctor. The money adhesive does not follow the surfaces of the eyes but being abrasive can cause damage. Consult a doctor immediately. Ingestion: in contact the product can immediately glue the lips together. Do not cause the He retched. Consult a doctor.

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

Inhalation: nose irritation, throat and airways. Ingestion: in contact the product can immediately glue the lips together. Skin: prolonged contact with the skin can cause redness and irritation. Eyes: irritating and can cause redness and pain.

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

Notes for the doctor: in case of glued skin. Slowly separate the skin starting from the edge of the area



Permabond<sup>®</sup>

# Permabond 792

Revision nr.1 Dated 19/01/2023 First compilation Printed on 16/02/2023 Page n. 3 / 10

glued. Help yourself with soap lukewarm water. In case of glued eyes. Do not force the opening of the eyelids. Apply a compress of hot water and let the eyes take they reopen alone.

## **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 CAUSED BY EXPOSURE IN THE EVENT OF FIRE Do not breathe combustion products.

#### 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

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.

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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. 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:

DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
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
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające
		rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych
		dla zdrowia w środowisku pracy
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska
		gränsvärden (AFS 2018:1)

				ethyl 2-c	yanoacrylate	•			
Threshold Limit \	/alue								
Туре	Country	TWA/8h		STEL/15	min	Remarks / 0	Observations		
		mg/m3	ppm	mg/m3	ppm				
TLV	DNK	10	2	20	4				
VLA	ESP		0,2						
HTP	FIN	1	0,2						
NDS/NDSCh	POL	1		2					
NGV/KGV	SWE	10	2	20	4				
Health - Derived I	no-effect lev	el - DNEL /	DMEL						
	Effe	cts on consi	imers			Effects on wo	orkers		
Route of expos	ure Acu	te Acı	ute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	loca	l sys	temic	local	systemic	local	systemic	local	systemic
Inhalation				9.25 mg/m3	9.25 mg/m3				

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 (see standard EN 374).

The following should be considered when choosing work glove material: 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 II 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.



Revision nr.1 Dated 19/01/2023 First compilation Printed on 16/02/2023 Page n. 5 / 10

#### **SECTION 9.** Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Properties Appearance Colour Odour Melting point / freezing point Initial boiling point Flammability Lower explosive limit Upper explosive limit Flash point Auto-ignition temperature Decomposition temperature pH	
Kinematic viscosity Dynamic viscosity Solubility Partition coefficient: n-octanol/water Vapour pressure Density and/or relative density	

Value liquid colourless pungent not applicable 100 °C not available not available not available 83 °C not available not available not available not available ~ 95 mPa.s not available not available

0,6

1,1

not available

not applicable

mBar

>

Information

Reason for missing data:substance/mixture is non-soluble (in water)

Temperature: 23 °C

Temperature: 25 °C

## 9.2. Other information

Relative vapour density

Particle characteristics

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

The product can react with water generating heat.

#### 10.2. Chemical stability

Stable to normal environment temperatures if used as recommended.

#### 10.3. Possibility of hazardous reactions

The reactions with the following materials can generate heat: alcohol water. Alkali. Amine.

## 10.4. Conditions to avoid

Do not add water directly to the product. It can cause a violent reaction.

#### 10.5. Incompatible materials

Water, alcohol, amine.

#### 10.6. Hazardous decomposition products

Heating can generate the following products: Gas/Vapors/Toxic fumes of: Dioxide of carbon (CO2). Carbon monoxide (CO). Nitrosis gas (NOX). Hydrogen cyanide (HCN).

EN



# **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.

Not classified (no significant component)

Not classified (no significant component)

Not classified (no significant component)

> 2000 mg/kg

> 5000 mg/kg

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

Metabolism, toxicokinetics, mechanism of action and other information

Cyanacrililated are not classified as sensitizing according to European legislation and the their rapid polymerization in contact with humidity makes the occurrence of similar unlikely Phenomena, however, ACGIH, American Conference of Governmental Industrial Hygienists, It reports some sporadic cases of awareness of the skin and respiratory system. It can cause allergic reactions in predisposed subjects.

Information on likely routes of exposure

Inhalation: irritating to the respiratory tract.

Ingestion: in contact the product can immediately glue the lips together.

Contact with the skin: irritating for the skin. Contact with the product, the skin will stick to itself and to any Another thing immediately.

Contact with eyes: irritating for the eyes. In contact, the product makes the eyelids join together. His vapors are tear gas.

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 (Dermal) of the mixture:

> ethyl 2-cyanoacrylate LD50 (Dermal): LD50 (Oral):

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

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

EN

## SECTION 11. Toxicological information .../>>

#### STOT - SINGLE EXPOSURE

May cause respiratory irritation

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.

## **SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

#### 12.1. Toxicity

Not considered dangerous for the environment. The mixture is classified on the basis of dangerous information for the ingredients such as defined by the classification criteria for mixtures for each danger class or according to differentiations present in Annex I of 1272/2008/EC. The available information of health/ecological relevant for substances are indicated in section 3 below.

#### 12.2. Persistence and 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  $\geq$  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

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

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. Waste transportation may be subject to ADR restrictions. CONTAMINATED PACKAGING



# Permabond Engineering Adhesives

Permabond 792

Revision nr.1 Dated 19/01/2023 First compilation Printed on 16/02/2023 Page n. 8 / 10

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

# **SECTION 14. Transport information**

#### 14.1. UN number or ID number

It applies only to internal containers> 500ml.

ADR / RID:	ADR EXEMPT
IMDG:	IMDG CODE EXEMPT
IATA:	3334

### 14.2. UN proper shipping name

ADR / RID:	ADR EXEMPT
IMDG:	IMDG CODE EXEMPT
IATA:	AVIATION REGULATED LIQUID, N.O.S.

### 14.3. Transport hazard class(es)

ADR / RID:	ADR EXEMPT
IMDG:	IMDG CODE EXEMPT

IATA:

Class: 9 Label: 9



#### 14.4. Packing group

ADR / RID:	ADR EXEMPT
IMDG:	IMDG CODE EXEMPT
IATA:	111

#### 14.5. Environmental hazards

ADR / RID:	ADR EXEMPT
IMDG:	IMDG CODE EXEMPT
IATA:	NO

#### 14.6. Special precautions for user

ADR / RID:	HIN - Kemler: -	Limited Quantities: -	Tunnel restriction code: -
	Special provision: -		
IMDG:	EMS: -	Limited Quantities: -	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Pass.:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A27	

#### 14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

# SECTION 15. Regulatory information

	<b>.</b>	/legislation specific for the subs	
Seveso Category - Direc	tive 2012/18/EU:	None	
Restrictions relating to th	e product or contained su	bstances pursuant to Annex XVII to	EC Regulation 1907/2006
Product			
Point	3		
Contained substance			
Point	75		

EN



Permabond Engineering Adhesives

Permabond 792

Revision nr.1 Dated 19/01/2023 First compilation Printed on 16/02/2023 Page n. 9 / 10

#### SECTION 15. Regulatory information ... / >>

not applicable

Substances in Candidate List (Art. 59 REACH) On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  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 1: Low 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.

# **SECTION 16. Other information**

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

Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

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



## SECTION 16. Other information ... / >>

- 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)
- 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.