			1
Wir	nkler Srl		Revision nr. 8 Dated 23/07/2024
DWNS00	00 - WINSEAL		Printed on 24/07/2024
FWNSUU	JU - WINSEAL		Page n. 1/13
			Replaced revision:7 (Dated: 05/07/2022)
	Safety Dat	ta Sheet	
According to Annex II to		U) 2020/878 and to Annex II to	UK REACH
SECTION 1. Identification of the sub	stance/mixture a	ind of the company/u	ndertaking
			2
1.1. Product identifier			
Code: Product name	PWNS0000 WINSEAL		
1 loudet hame	WINGLAL		
1.2. Relevant identified uses of the substance or n	nixture and uses advis	ed against	
Intended use Gommo-bituminous			
Identified Uses Bituminous rubber sealant	Industrial	Professional	Consumer
	-	×	-
Intended for the general public	-	-	~
1.3. Details of the supplier of the safety data sheet Name	Winkler Srl		
Full address	via Michelangelo Bu	onarroti 15	
District and Country	20093 Cologno Monz		
	Italia		
	Tel. +39 02 26700605		
e-mail address of the competent person			
responsible for the Safety Data Sheet	laboratorio@winkler	chimica.com	
1.4. Emergency telephone number			
For urgent inquiries refer to	United Kingdom 999/112 emergency		
	111 non-emergency	medical number	
	NHS 111 (England)		
	NHS 24 (Scotland) NHS Direct (Wales)		
SECTION 2. Hazards identification			
2.1. Classification of the substance or mixture			
The product is classified as hazardous pursuant to th			
supplements). The product thus requires a safety datas Any additional information concerning the risks for healt			
		nt are given in sections in and	12 of this sheet.
Hazard classification and indication:			
Flammable liquid, category 3	H226	Flammable liquid and	vapour.
2.2. Label elements			

		kler Srl	Revision nr. 8 Dated 23/07/2024
	PWNS000	0 - WINSEAL	Printed on 24/07/2024
	1 11100000		Page n. 2/13
			Replaced revision:7 (Dated: 05/07/2022)
azard labelling pursuan	t to EC Regulation 1272/2008 (C	CLP) and subsequent amendments and supple	ments.
Hazard pictograms:			
$\mathbf{\nabla}$			
Signal words:	Warning		
Hazard statements:			
H226	Flammable liquid and vapou	ır.	
Precautionary statements:			
P370+P378		ioxide, extinguishing powder, foam to extinguis	h.
P102 P210	Keep out of reach of children Keep away from heat, hot su	n. urfaces, sparks, open flames and other ignition	sources. No smoking.
P233 P280	Keep container tightly closed		5
P241	Wear protective gloves. Use explosion-proof electrica	al / ventilating / lighting equipment.	
roduct not intended for u	uses provided for by Directive 20	004/42/EC	
Todact not intended for t	uses provided for by Directive 20	JU4/42/LO.	
2.3. Other hazards			
In the basis of available	data the product does not conta	ain any PBT or yPyB in percentage > than 0.1%	6
		ain any PBT or vPvB in percentage ≥ than 0,1%	6.
he product does not cor	ntain substances with endocrine	disrupting properties in concentration $\ge 0.1\%$.	6.
he product does not cor		disrupting properties in concentration $\ge 0.1\%$.	6.
he product does not cor	ntain substances with endocrine	disrupting properties in concentration $\ge 0.1\%$.	6.
The product does not cor	ntain substances with endocrine	disrupting properties in concentration $\ge 0.1\%$.	6.
he product does not cor SECTION 3. Cor 3.2. Mixtures Contains: Identification	ntain substances with endocrine	disrupting properties in concentration $\ge 0.1\%$.	6.
he product does not cor SECTION 3. Cor 3.2. Mixtures ontains: Identification N-BUTYL ACETATE	ntain substances with endocrine on nposition/information	disrupting properties in concentration ≥ 0.1%.	
he product does not cor SECTION 3. Cor 3.2. Mixtures ontains: Identification N-BUTYL ACETATE INDEX 607-025-00-1	ntain substances with endocrine of nposition/information	disrupting properties in concentration ≥ 0.1%. on ingredients Classification (EC) 1272/2008 (CLP)	
he product does not cor SECTION 3. Cor 3.2. Mixtures ontains: Identification N-BUTYL ACETATE INDEX 607-025-00-1 EC 204-658-1	ntain substances with endocrine of nposition/information	disrupting properties in concentration ≥ 0.1%. on ingredients Classification (EC) 1272/2008 (CLP)	
he product does not cor SECTION 3. Cor 3.2. Mixtures contains: Identification N-BUTYL ACETATE INDEX 607-025-00-1 EC 204-658-1 CAS 123-86-4	ntain substances with endocrine of nposition/information x = Conc. % 12 ≤ x < 13,5	disrupting properties in concentration ≥ 0.1%. on ingredients Classification (EC) 1272/2008 (CLP)	
The product does not cor SECTION 3. Cor 3.2. Mixtures Contains: Identification N-BUTYL ACETATE INDEX 607-025-00-1 EC 204-658-1 CAS 123-86-4 REACH Reg. 01-2119	ntain substances with endocrine of nposition/information x = Conc. % 12 ≤ x < 13,5	disrupting properties in concentration ≥ 0.1%. on ingredients Classification (EC) 1272/2008 (CLP) Flam. Liq. 3 H226, STOT SE 3 H336, EU⊢	
he product does not cor SECTION 3. Cor 3.2. Mixtures Contains: Identification N-BUTYL ACETATE INDEX 607-025-00-1 EC 204-658-1 CAS 123-86-4 REACH Reg. 01-2119	ntain substances with endocrine of nposition/information x = Conc. % $12 \le x < 13,5$ 1485493-29 d (H) phrases is given in section	disrupting properties in concentration ≥ 0.1%. on ingredients Classification (EC) 1272/2008 (CLP) Flam. Liq. 3 H226, STOT SE 3 H336, EU⊢	
he product does not cor SECTION 3. Cor 3.2. Mixtures contains: Identification N-BUTYL ACETATE INDEX 607-025-00-1 EC 204-658-1 CAS 123-86-4 REACH Reg. 01-2119 he full wording of hazard	ntain substances with endocrine of nposition/information x = Conc. % $12 \le x < 13,5$ 1485493-29 d (H) phrases is given in section st aid measures	disrupting properties in concentration ≥ 0.1%. on ingredients Classification (EC) 1272/2008 (CLP) Flam. Liq. 3 H226, STOT SE 3 H336, EU⊢	

Winkler Sri	Revision nr. 8 Dated 23/07/2024
PWNS0000 - WINSEAL	Printed on 24/07/2024

Page n. 3/13

Replaced revision:7 (Dated: 05/07/2022)

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Excess pressure may form in containers exposed to fire at a risk of explosion. 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.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

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

PWNS0000 - WINSEAL

Revision nr. 8 Dated 23/07/2024

Printed on 24/07/2024 Page n. 4/13

Replaced revision:7 (Dated: 05/07/2022)

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)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
	F = = = # =	5
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
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
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 Kinadom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OELEU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

N-BUTYL ACETATE

Threshold Limit Value							
Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
-		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	300	62	600 (C)	124 (C)		

PWNS0000 - WINSEAL

Dated 23/07/2024 Printed on 24/07/2024

Revision nr. 8

Page n. 5/13 Replaced revision:7 (Dated: 05/07/2022)

VLA	ESP	241	50	724	150	
VLEP	FRA	710	150	940	200	
VLEP	ITA	241	50	723	150	
NDS/NDSCh	POL	240		720		
MV	SVN	300	62	600	124	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	

Legend:

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

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.

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.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

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.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties Appearance Value not available Information

PWNS0000 - WINSEAL

Revision nr. 8

Dated 23/07/2024

Printed on 24/07/2024 Page n. 6/13 Replaced revision:7 (Dated: 05/07/2022)

Colour	not available
Odour	not available
Melting point / freezing point	not available
Initial boiling point	not available
Flammability	not available
Lower explosive limit	not available
Upper explosive limit	not available
Flash point	56 °C
Auto-ignition temperature	not available
Decomposition temperature	not available
pH	not applicable
Kinematic viscosity	not available
Solubility	not available
Partition coefficient: n-octanol/water	not available
Vapour pressure	0,83 mmHg
Density and/or relative density	1,33 kg/l
Relative vapour density	not available
Particle characteristics	not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Total solids (250°C / 482°F)	88,00 %
VOC (Directive 2010/75/EU)	11,80 % - 157,00 g/litre
VOC (volatile carbon)	7,44 % - 98,93 g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

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

N-BUTYL ACETATE

Decomposes on contact with: water.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

PWNS0000 - WINSEAL

Revision nr. 8

Dated 23/07/2024 Printed on 24/07/2024

Page n. 7/13 Replaced revision:7 (Dated: 05/07/2022)

N-BUTYL ACETATE

Risk of explosion on contact with: strong oxidising agents. May react dangerously with: alkaline hydroxides, potassium tert-butoxide. Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

N-BUTYL ACETATE

Avoid exposure to: moisture,sources of heat,naked flames.

10.5. Incompatible materials

N-BUTYL ACETATE

Incompatible with: water, nitrates, strong oxidants, acids, alkalis, zinc.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

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

Information on likely routes of exposure

N-BUTYL ACETATE WORKERS: inhalation; contact with the skin.

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

N-BUTYL ACETATE

Winkler	Srl	Revision nr. 8
PWNS0000 - W		Dated 23/07/2024 Printed on 24/07/2024
FWN30000 - W	INSEAL	Page n. 8/13
		Replaced revision:7 (Dated: 05/07/2022)
In humans, the substance's vapours cause irritation of the eye cracking of the skin) and keratitis appear.	es and nose. In the event of repeated exposure, sh	in irritation, dermatitis (dryness and
Interactive effects		
N-BUTYL ACETATE A case of acute intoxication been reported involving a 33 year ethylene glycol acetate. The person had irritation of the conju disappeared within 5 hours. The symptoms are attributed to poi for the neurological effects. Cases of vacuolar keratitis are rep uncertainty concerning the responsibility of a particular solvent (nctiva and upper respiratory tract, drowsiness and soning by mixed xylenes and butyl acetate, with a p orted in workers exposed to a mixture of butyl acet	motor coordination disorders, which ossible synergistic effect responsible
ACUTE TOXICITY		
ATE (Inhalation) of the mixture: ATE (Oral) of the mixture: ATE (Dermal) of the mixture:	Not classified (no significant component) Not classified (no significant component) Not classified (no significant component)	
N-BUTYL ACETATE		
LD50 (Dermal): LD50 (Oral): LC50 (Inhalation vapours):	> 5000 mg/kg Rabbit > 6400 mg/kg Rat 21,1 mg/l/4h Rat	
SKIN CORROSION / IRRITATION		
Does not meet the classification criteria for this hazard class		
SERIOUS EYE DAMAGE / IRRITATION		
Does not meet the classification criteria for this hazard class		
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		

Winkler Srl	Revision nr. 8
	Dated 23/07/2024
PWNS0000 - WINSEAL	Printed on 24/07/2024
	Page n. 9/13
	Replaced revision:7 (Dated: 05/07/2022)

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.

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

Information not available

12.2. Persistence and degradability

N-BUTYL ACETATE	
Solubility in water	1000 - 10000 mg/l
12.3. Bioaccumulative potential	
N-BUTYL ACETATE	
Partition coefficient: n-octanol/water	2,3
BCF	15,3

Winkler Srl	Revision nr. 8
	Dated 23/07/2024
PWNS0000 - WINSEAL	Printed on 24/07/2024

Page n. 10/13 Replaced revision:7 (Dated: 05/07/2022)

12.4. Mobility in soil

N-BUTYL ACETATE Partition coefficient: soil/water

< 3

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.

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

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

Winkler Srl	Revision nr. 8
winkler Sri	Dated 23/07/2024
PWNS0000 - WINSEAL	Printed on 24/07/2024
	Page n. 11/13
	Replaced revision:7 (Dated: 05/07/2022)
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: P5c	
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006	
Product Point 3 - 40	
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	

Winkler Srl	Revision nr. 8
	Dated 23/07/2024
PWNS0000 - WINSEAL	Printed on 24/07/2024
	Page n. 12/13
	Replaced revision:7 (Dated: 05/07/2022)
ubstances subject to the Rotterdam Convention: one ubstances subject to the Stockholm Convention:	
one	
ealthcare controls	

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:

Flam. Liq. 3	Flammable liquid, category 3
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

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

Winkler Srl	Revision nr. 8 Dated 23/07/2024
PWNS0000 - WINSEAL	Printed on 24/07/2024
	Page n. 13/13
	Replaced revision:7 (Dated: 05/07/2022)
WGK: Water hazard classes (German).	
ENERAL BIBLIOGRAPHY Regulation (EC) 1907/2006 (REACH) of the European Parliament	
Regulation (EC) 1272/2008 (CLP) of the European Parliament	
Regulation (EU) 2020/878 (II Annex of REACH Regulation)	
Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament	
Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament	
Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament	
Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament	
Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament	
 Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament 	
2. Regulation (EU) 2016/1179 (IX Atp. CLP)	
3. Regulation (EU) 2017/776 (X Atp. CLP)	
4. Regulation (EU) 2018/669 (XI Atp. CLP)	
5. Regulation (EU) 2019/521 (XII Atp. CLP)	
6. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP) 7. Regulation (EU) 2019/1148	
3. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)	
9. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)	
D. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)	
1. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)	
2. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)	
The Merck Index 10th Edition	
Handling Chemical Safety NRS - Fiche Toxicologique (toxicological sheet)	
Patty - Industrial Hygiene and Toxicology	
N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition	
FA GESTIS website	
ECHA website	- 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.

Changes to previous review:

The following sections were modified:

09 / 11.