

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

Safety Data Sheet

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

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

1.1. Product identifier

Code: **BMUSA**
Product name: **BI MORTAR ULTRA SEAL COMPONENT A**
UFI: **FYX0-K0JJ-P00M-HR19**

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

Intended use: **not available**

1.3. Details of the supplier of the safety data sheet

Name: **VOLTECO S.p.A**
Full address: **via delle industrie 47**
District and Country: **31050 Ponzano Veneto (TV)**
Italia
Tel.: **04229663**
e-mail address of the competent person responsible for the Safety Data Sheet: **volteco@volteco.it**

1.4. Emergency telephone number

For urgent inquiries refer to: **NPIS: 0344 892 0111**

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.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms:



Signal words: **Warning**

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A**SECTION 2. Hazards identification ... / >>**

Precautionary statements:

P280	Wear protective gloves / eye protection / face protection.
P273	Avoid release to the environment.
P391	Collect spillage.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.

Contains: Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane
oxirane, mono[(C12-14-alkyloxy)methyl] derivatives
Diglycidyl ether of polypropylene glycol

Product not intended for uses provided for by Directive 2004/42/EC.

2.3. Other hazardsOn 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 \geq 0.1%.**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane		
INDEX	603-073-00-2	40 \leq x < 50
EC	216-823-5	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
CAS	1675-54-3	Skin Irrit. 2 H315: \geq 5%, Eye Irrit. 2 H319: \geq 5%
REACH Reg.	01-01-2119456619-26	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol		
INDEX	-	15 \leq x < 25
EC	500-006-8	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
CAS	9003-36-5	
oxirane, mono[(C12-14-alkyloxy)methyl] derivatives		
INDEX	603-103-00-4	5 \leq x < 9
EC	271-846-8	Skin Irrit. 2 H315, Skin Sens. 1 H317
CAS	68609-97-2	
REACH Reg.	01-2119485289-22-XXXX	
Diglycidyl ether of polypropylene glycol		
INDEX		1 \leq x < 3
EC		Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317
CAS	26142-30-3	
XYLENE		
INDEX	601-022-00-9	0,4 \leq x < 0,5
EC	215-535-7	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: C
CAS	1330-20-7	ATE Dermal: 1100 mg/kg, ATE Inhalation vapours: 11 mg/l
ETHYLBENZENE		
INDEX	601-023-00-4	0,2 \leq x < 0,3
EC	202-849-4	Flam. Liq. 2 H225, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Aquatic Chronic 3 H412
CAS	100-41-4	LC50 Inhalation vapours: 17,2 mg/l/4h
2-METHOXY-1-METHYLETHYL ACETATE		
INDEX	607-195-00-7	0,1 \leq x < 0,2
EC	203-603-9	Flam. Liq. 3 H226
CAS	108-65-6	

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A**SECTION 3. Composition/information on ingredients ... / >>****N-BUTYL ACETATE**

INDEX 607-025-00-1 0 < x < 0,1 **Flam. Liq. 3 H226, STOT SE 3 H336, EUH066**
 EC 204-658-1
 CAS 123-86-4

TOLUENE

INDEX 601-021-00-3 0 < x < 0,1 **Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 3 H412**
 EC 203-625-9
 CAS 108-88-3

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**

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane

Protection of first responders: No action shall be taken involving any personal risk or without appropriate training. Performing mouth-to-mouth resuscitation can be dangerous for the person providing help. Wash the contaminated clothing thoroughly with water before removing it, or use gloves.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

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

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane

Potential acute health effects

Contact with eyes: causes serious eye irritation.

Inhalation: No known significant effects or critical hazards.

Contact with skin: causes skin irritation. May cause a skin reaction.

Ingestion: No known significant effects or critical hazards.

Signs/Symptoms of overexposure

Eye contact: Adverse symptoms may include the following: pain or irritation, watering, redness pain or irritation watering redness

Inhalation: no specific data.

Skin contact: Adverse symptoms may include the following: irritation, redness

Ingestion: no specific data.

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

If skin irritation or rash occurs: Get medical advice / attention.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

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

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. Use breathing equipment if powders are released into the air.

6.2. Environmental precautions

Avoid the formation of powder and dispersion of the product in the air.

6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. Make sure the leakage site is well aired. It may be advisable to wash with water any surfaces contaminated with traces of dust, without contaminating waste water.

6.4. Reference to other sections

Notify the competent authorities if the product has reached waterways or if it has contaminated the ground or vegetation.

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.

2-METHOXY-1-METHYLETHYL ACETATE

Store in an inert atmosphere, sheltered from moisture because it hydrolyses easily.

7.3. Specific end use(s)

Information not available

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58
ESP	España	Límites de exposición profesional para agentes químicos en España 2023
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France Décret n° 2021-1849 du 28 décembre 2021
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
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
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
RUS	Россия	ПОСТАНОВЛЕНИЕ от 13 февраля 2018 г. N 25 ОБ УТВЕРЖДЕНИИ ГИГИЕНИЧЕСКИХ НОРМАТИВОВ ГН 2.2.5.3532-18 "ПРЕДЕЛЬНО ДОПУСТИМЫЕ КОНЦЕНТРАЦИИ (ПДК) ВРЕДНЫХ ВЕЩЕСТВ В ВОЗДУХЕ РАБОЧЕЙ ЗОНЫ"
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)
EU	OEL EU	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 2023

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,003	mg/l
Normal value in marine water	0,00003	mg/l
Normal value for fresh water sediment	0,294	mg/kg/d
Normal value for marine water sediment	0,0294	mg/kg/d
Normal value for water, intermittent release	0,0254	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,237	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				6,25 mg/kg bw/d				
Inhalation				8,7 mg/m3			29,39 mg/m3	
Skin	0,0083 mg/cm2		62.5	62.5 mg/kg bw/d	0.0083 mg/cm2			104.15 mg/kg bw/d

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 8. Exposure controls/personal protection ... / >>

XYLENE						
Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	220	50	440	100	SKIN
MAK	DEU	220	50	440	100	SKIN
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
GVI/KGVI	HRV	221	50	442	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
TGG	NLD	210		442		SKIN
NDS/NDSch	POL	100		200		SKIN
TLV	ROU	221	50	442	100	SKIN
ПДК	RUS	50		150		n
MV	SVN	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH			20			

2-METHOXY-1-METHYLETHYL ACETATE						
Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
VLA	ESP	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
GVI/KGVI	HRV	275	50	550	100	SKIN
VLEP	ITA	275	50	550	100	SKIN
TGG	NLD	550				
NDS/NDSch	POL	260		520		SKIN
TLV	ROU	275	50	550	100	SKIN
ПДК	RUS			10		n
MV	SVN	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	SKIN
OEL	EU	275	50	550	100	SKIN

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 8. Exposure controls/personal protection ... / >>

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	190	50	760	200	SKIN
MAK	DEU	190	50	380	100	SKIN
VLA	ESP	192	50	384	100	SKIN
VLEP	FRA	76,8	20	384	100	SKIN
GVI/KGVI	HRV	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
TGG	NLD	150		384		
NDS/NDSCh	POL	100		200		SKIN
TLV	ROU	192	50	384	100	SKIN
ПДК	RUS	50		150		n
MV	SVN	192	50	384	100	SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH			20			

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,68	mg/l
Normal value in marine water	0,68	mg/l
Normal value for fresh water sediment	16,39	mg/kg
Normal value for marine water sediment	16,39	mg/kg
Normal value for water, intermittent release	0,68	mg/l
Normal value for marine water, intermittent release	0,00378	mg/l
Normal value of STP microorganisms	13,61	mg/l
Normal value for the terrestrial compartment	2,89	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral								8,13 mg/kg bw/d
Inhalation	226 mg/m3	226 mg/m3	56,5 mg/m3	56,5 mg/m3	384 mg/m3	384 mg/m3	192 mg/m3	192 mg/m3
Skin				226 mg/kg bw/d				384 mg/kg bw/d

ETHYLBENZENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	88	20	176	40	SKIN
MAK	DEU	88	20	176	40	SKIN
VLA	ESP	441	100	884	200	SKIN
VLEP	FRA	88,4	20	442	100	SKIN
GVI/KGVI	HRV	442	100	884	200	SKIN
VLEP	ITA	442	100	884	200	SKIN
TGG	NLD	215		430		SKIN
NDS/NDSCh	POL	200		400		SKIN
TLV	ROU	442	100	884	200	SKIN
ПДК	RUS	50		150		n
MV	SVN	442	100	884	200	SKIN
WEL	GBR	441	100	552	125	SKIN
OEL	EU	442	100	884	200	SKIN
TLV-ACGIH		87	20			

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 8. Exposure controls/personal protection ... / >>

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	300	62	600	124	
MAK	DEU	480	100	960	200	
VLA	ESP	241	50	723	150	
VLEP	FRA	241	50	723	150	
GVI/KGVI	HRV	241	50	723	150	
VLEP	ITA	241	50	723	150	
TGG	NLD	150				
NDS/NDSch	POL	240		720		
TLV	ROU	241	50	723	150	
ПДК	RUS			0,1		n
MV	SVN	300	62	600	124	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,006	mg/l
Normal value in marine water	0,0006	mg/l
Normal value for fresh water sediment	0,341	mg/kg/d
Normal value for marine water sediment	0,0341	mg/kg/d
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	11	mg/kg
Normal value for the terrestrial compartment	65	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,5				
				mg/kg bw/d				
Inhalation				0,87				4,93
				mg/m3				mg/m3
Skin				0,0893				0,75
				mg/kg bw/d				mg/kg bw/d

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0072	mg/l
Normal value in marine water	0,72	mg/l
Normal value for fresh water sediment	307,16	mg/kg/d
Normal value for marine water sediment	30,716	mg/kg/d
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	61,42	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,05				
				mg/kg bw/d				
Inhalation				0,087				0,49
				mg/m3				mg/m3
Skin				0,089				0,75
				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

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 8. Exposure controls/personal protection ... / >>

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, permeability time. 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 ISO 16321).

RESPIRATORY PROTECTION

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. Use a mask with a type AX filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).

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.

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane

Suitable engineering controls: no special ventilation is required. Good general ventilation should be sufficient to control workers' exposure to air pollutants. If this product contains ingredients with exposure limits, perform the process under containment conditions, use local exhaust ventilation or other control devices necessary to keep worker exposure below recommended or legally imposed limits.

Individual protection measures

Hygiene measures: before eating, smoking, using the bathroom and at the end of the work shift, wash your hands, arms and face thoroughly after touching chemical products. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing must not be taken out of the workplace. Wash the contaminated garments before reusing them.

Make sure that the emergency shower and eyewash are close to the place where the work is carried out.

Eye/face protection: Safety glasses complying with approved standards should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, sprays, gases or dusts. If contact is possible, use the following means of protection, unless the assessment indicates the need for a higher degree of protection: chemical resistant splash goggles.

Skin protection

Hand protection: Chemical resistant, impervious gloves complying with approved standards should always be used when handling chemicals if the risk assessment indicates this is necessary.

Considering the parameters specified by the glove manufacturer, check during use that the gloves still maintain their protective properties unaltered. Note that the breakthrough time for any glove material may vary depending on the glove manufacturer. For mixtures, composed of several substances, it is not possible to precisely estimate the protection time of the gloves.

Material: 730 Camatril

Minimum penetration time: 480 min

Material: 898 Butoject

Minimum penetration time: 480 min

Manufacturer: This recommendation is valid only for our product in delivery conditions. If this product will come

mixed with other substances, you will need to contact a supplier

EC approved protective gloves (e.g. KCL GmbH, D36124 Eichenzell, Tel. 0049 (0) 6659 87300, Fax. 0049 (0) 6659 87155, email: vertrieb@kcl.de).

Body protection equipment: personal protective equipment for the body must be chosen based on the risks foreseen for the task performed and approved by qualified personnel before their use for handling this product.

Other skin protection devices: choose appropriate footwear and any additional skin protection measures based on the activity being carried out and the risks involved. Such choices must be approved by a specialist before handling this product.

Respiratory Protection: Based on the hazard and potential for exposure, select a respirator that meets appropriate standards and certification.

Respirators must be used according to a respiratory protection program to ensure correct sizing, training and other important aspects of use.

Use a custom-made air-purifying or fresh air respirator complying with approved standards if a risk assessment indicates this is necessary.

Respirator selection should be based on known or anticipated exposure levels, product risks, and safe operating limits of the selected respirator.

Environmental exposure controls: Emissions from ventilation equipment or work processes should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, it will be necessary to perform flue gas scrubbing, add filters or make engineering changes to process equipment to reduce emissions to acceptable levels

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

General protective measures: Glasses or visors to protect against splashes of chemical materials. Chemical resistant gloves. Suitable protective footwear. Light protective clothing. Eye drop bottle with pure water.

SECTION 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Properties	Value	Information
Appearance	liquid	
Colour	white	
Odour	mild	
Melting point / freezing point	not available	
Initial boiling point	60 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	> 60 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	
Kinematic viscosity	not available	
Dynamic viscosity	450 - 1100 mPa s	
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	< 25 hPa	Temperature: 20 °C
Density and/or relative density	1,15	
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

VOC (Directive 2010/75/EU) 14,00 % - 16,10 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.

2-METHOXY-1-METHYLETHYL ACETATE

Stable in normal conditions of use and storage.

With the air it may slowly develop peroxides that explode with an increase in temperature.

TOLUENE

Avoid exposure to: light.

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

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

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A**SECTION 10. Stability and reactivity** ... / >>

XYLENE

Stable in normal conditions of use and storage. Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates. May form explosive mixtures with: air.

2-METHOXY-1-METHYLETHYL ACETATE

May react violently with: oxidising substances, strong acids, alkaline metals.

TOLUENE

Risk of explosion on contact with: fuming sulphuric acid, nitric acid, silver perchlorate, nitrogen dioxide, non-metal halogenates, acetic acid, organic nitrocompounds. May form explosive mixtures with: air. May react dangerously with: strong oxidising agents, strong acids, sulphur.

ETHYLBENZENE

Reacts violently with: strong oxidants. Attacks various types of plastic materials. May form explosive mixtures with: air.

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

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

N-BUTYL ACETATE

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

10.5. Incompatible materials

2-METHOXY-1-METHYLETHYL ACETATE

Incompatible with: oxidising substances, strong acids, alkaline metals.

N-BUTYL ACETATE

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

10.6. Hazardous decomposition products

ETHYLBENZENE

May develop: methane, styrene, hydrogen, ethane.

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 1272/2008Metabolism, toxicokinetics, mechanism of action and other information

2-METHOXY-1-METHYLETHYL ACETATE

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Information on likely routes of exposure

XYLENE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

2-METHOXY-1-METHYLETHYL ACETATE

WORKERS: inhalation; contact with the skin.

TOLUENE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

ETHYLBENZENE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; contact with the skin of products containing the substance.

N-BUTYL ACETATE

WORKERS: inhalation; contact with the skin.

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

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 11. Toxicological information ... / >>

XYLENE

Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

2-METHOXY-1-METHYLETHYL ACETATE

Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

TOLUENE

Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

ETHYLBENZENE

As the counterparts of benzene, may have an acute effect on the central nervous system, with depression, narcosis, often preceded by dizziness and associated with headache (Ispes). Is irritating for skin, conjunctiva and respiratory tract.

N-BUTYL ACETATE

In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

Interactive effects

XYLENE

Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

TOLUENE

Certain drugs and other industrial products can interfere with the metabolism of the toluene.

N-BUTYL ACETATE

A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

LD50 (Dermal):	2000 mg/kg
LD50 (Oral):	> 2000 mg/kg

XYLENE

LD50 (Dermal):	4350 mg/kg Rabbit
ATE (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	3523 mg/kg Rat
LC50 (Inhalation vapours):	26 mg//4h Rat

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Dermal):	> 5000 mg/kg Rat
LD50 (Oral):	8530 mg/kg Rat

TOLUENE

LD50 (Dermal):	12124 mg/kg Rabbit
LD50 (Oral):	5580 mg/kg Rat
LC50 (Inhalation vapours):	28,1 mg//4h Rat

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 11. Toxicological information ... / >>

ETHYLBENZENE
LD50 (Dermal): 15354 mg/kg Rabbit
LD50 (Oral): 3500 mg/kg Rat
LC50 (Inhalation vapours): 17,2 mg/l/4h Rat

N-BUTYL ACETATE
LD50 (Dermal): > 5000 mg/kg Rabbit
LD50 (Oral): > 6400 mg/kg Rat
LC50 (Inhalation vapours): 21,1 mg/l/4h Rat

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane
LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): > 2000 mg/kg

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives
LD50 (Dermal): > 4500 mg/kg Rabbit
LD50 (Oral): 19200 mg/kg Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

In a sensitization study with the Buehler method conducted according to the OTS 870.2600 test specification of the US EPA, positive skin reactions were observed in 20/20 guinea pigs. An extreme sensitizer in a guinea pig maximization test study conducted according to OECD Test Guideline No. 406.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

Positive in a bacterial mutation test conducted according to OECD test specification No. 471 in experimental Salmonella strain TA1535 with and without metabolic activation with S9. Negative in a HGPRT Chinese Hamster Ovary (CHO) cell gene mutation test conducted according to OECD Test Guideline No. 476 up to cytotoxic levels with and without metabolic activation with S9. Negative in a gene mutation assay on L5178Y/TK mouse lymphoma cells tested up to cytotoxic dose levels.

Negative for micronucleus induction (chromosomal damage) in a mouse study conducted according to OECD Regulation No. 474 up to a high intraperitoneal injection dose of 4.0 grams/kg. Negative in a rat bone marrow chromosomal aberration study conducted in a manner similar to OECD Test Guideline No. 475 by intraperitoneal injection, up to a high dose of approximately 700 mg/kg.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

XYLENE

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC). The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

TOLUENE

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).

The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

ETHYLBENZENE

Classified in Group 2B (possible human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 2000). Classified in Group D (not classifiable as a human carcinogen) by the US Environmental Protection Agency (EPA) - (US EPA file on-line 2014).

REPRODUCTIVE TOXICITY

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A**SECTION 11. Toxicological information ... / >>**

Does not meet the classification criteria for this hazard class

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

In a rat dermal toxicology study according to US EPA OTS Method 798.4420 and OECD Test Guideline No. 414, the NOAEL for both maternal and developmental adverse effects was greater than the high dose level of 200 mg/ kg/day.

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

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

12.1. Toxicity

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

LC50 - for Fish	2,54 mg/l/96h
EC50 - for Crustacea	2,55 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane

LC50 - for Fish	175 mg/l/96h
EC50 - for Crustacea	1,7 mg/l/48h
EC50 - for Algae / Aquatic Plants	4,2 mg/l/72h

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

LC50 - for Fish	> 1800 mg/l/96h Rainbow trout,donaldson
EC50 - for Crustacea	10 mg/l/48h

12.2. Persistence and degradability

XYLENE

Solubility in water	100 - 1000 mg/l
Rapidly degradable	

2-METHOXY-1-METHYLETHYL ACETATE

Solubility in water	> 10000 mg/l
Rapidly degradable	

TOLUENE

Solubility in water	100 - 1000 mg/l
Rapidly degradable	

ETHYLBENZENE

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

N-BUTYL ACETATE

Solubility in water	1000 - 10000 mg/l
---------------------	-------------------

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A**SECTION 12. Ecological information ... / >>**

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

NOT rapidly degradable

12.3. Bioaccumulative potential

XYLENE

Partition coefficient: n-octanol/water 3,12
BCF 25,9

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: n-octanol/water 1,2

TOLUENE

Partition coefficient: n-octanol/water 2,73
BCF 90

ETHYLBENZENE

Partition coefficient: n-octanol/water 3,6

N-BUTYL ACETATE

Partition coefficient: n-octanol/water 2,3
BCF 15,3

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

Partition coefficient: n-octanol/water 3,77
BCF 160

12.4. Mobility in soil

XYLENE

Partition coefficient: soil/water 2,73

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 \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**

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.

The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.

CONTAMINATED PACKAGING

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

SECTION 14. Transport information

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 14. Transport information ... / >>

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9



IMDG: Class: 9 Label: 9



IATA: Class: 9 Label: 9



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: Environmentally Hazardous



14.6. Special precautions for user

ADR / RID: HIN - Kemler: 90 Limited Quantities: 5 lt Tunnel restriction code: (-)

Special provision: 274, 335, 375, 601

IMDG: EMS: F-A, S-F Limited Quantities: 5 lt

IATA: Cargo: Maximum quantity: 450 L

Passengers: Maximum quantity: 450 L

Special provision: A97, A158, A197, A215

Packaging instructions: 964

Packaging instructions: 964

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Seveso Category - Directive 2012/18/EU:

E2

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

Point 3 - 40

Contained substance

Point 75

Point 75

TOLUENE

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Point 75

Point 75

XYLENE

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane

REACH Reg.: 01-01-2119456619-26

Point 75

oxirane, mono[(C12-14-alkyloxy)methyl] derivatives

REACH Reg.: 01-2119485289-22-XXXX

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 \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.

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. 2

Flammable liquid, category 2

Flam. Liq. 3

Flammable liquid, category 3

Repr. 2

Reproductive toxicity, category 2

Acute Tox. 4

Acute toxicity, category 4

Asp. Tox. 1

Aspiration hazard, category 1

STOT RE 2

Specific target organ toxicity - repeated exposure, category 2

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

Skin Sens. 1

Skin sensitization, category 1

Aquatic Chronic 2

Hazardous to the aquatic environment, chronic toxicity, category 2

Aquatic Chronic 3

Hazardous to the aquatic environment, chronic toxicity, category 3

H225

Highly flammable liquid and vapour.

H226

Flammable liquid and vapour.

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A**SECTION 16. Other information ... / >>**

H361d	Suspected of damaging the unborn child.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
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
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- 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
- vPvM: Very persistent and very mobile
- 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)

BMUSA - BI MORTAR ULTRA SEAL COMPONENT A

SECTION 16. Other information ... / >>

21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707
24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI 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.