



**Bossong SpA**

Revision nr. 9

Dated 20/06/2022

**M3000003F - BCR V PLUS/W/T COMP A**

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Replaced revision:8 (Printed on: 15/05/2019)

## Safety Data Sheet

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

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

#### 1.1. Product identifier

Code: **M3000003F**  
Product name: **BCR V PLUS/W/T COMP A**  
Chemical name and synonym: **Mastic based vinylester resin unsaturated**  
UFI: **2C00-Y05W-H00Y-9ACA**

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

Intended use: **Bi-component injection system for chemical anchor on construction materials.**

#### 1.3. Details of the supplier of the safety data sheet

Name: **Bossong SpA**  
Full address: **via E. Fermi, 51**  
District and Country: **24050 Grassobbio (BG) Italia**

**Tel. 035-3846011**

**Fax 035-3846012**

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

**tek@bossong.com**

#### 1.4. Emergency telephone number

For urgent inquiries refer to **Ospedale NIGUARDA Milano tel. +39 0266101029**  
**<http://www.centroantiveleni.org/>**

Centro Antiveleni di Bergamo (CAV Ospedali Riuniti) tel: 800 883300

Centro Antiveleni di Roma (CAV Policlinico Gemelli) tel: +39 06 3054343

### 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:

Specific target organ toxicity - single exposure, category 3  
Skin sensitization, category 1

H335  
H317

May cause respiratory irritation.  
May cause an allergic skin reaction.

#### 2.2. Label elements

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

Hazard pictograms:



Signal words: Warning

Hazard statements:

**H335** May cause respiratory irritation.  
**H317** May cause an allergic skin reaction.

Precautionary statements:

**P101** If medical advice is needed, have product container or label at hand.  
**P102** Keep out of reach of children.  
**P280** Wear protective gloves / eye protection / face protection.  
**P302+P352** IF ON SKIN: wash with plenty of water / . . .  
**P333+P313** If skin irritation or rash occurs: Get medical advice / attention.  
**P501** Dispose of contents/container in accordance with national regulations.

**Contains:** Ethylene dimethacrylate  
Methacrylic acid, monoester with propane 1,2 - diol

### 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  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>Ethylene dimethacrylate</b>		
CAS 97-90-5	$10 \leq x < 17$	STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: D
EC 202-617-2		STOT SE 3 H335: $\geq 10\%$
INDEX 607-114-00-5		
REACH Reg. 01-2119965172-38		

**M3000003F - BCR V PLUS/W/T COMP A****Methacrylic acid, monoester with propane 1,2 - diol**

CAS 27813-02-1

 $5 \leq x < 9$ 

Eye Irrit. 2 H319, Skin Sens. 1 H317

EC 248-666-3

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REACH Reg. 01-2119490226-37

**1,1'- (p-tolylimino) dipropan-2-ol**

CAS 38668-48-3

 $0 \leq x < 1$ 

Acute Tox. 2 H300, Eye Irrit. 2 H319, Aquatic Chronic 3 H412

EC 254-075-1

LD50 Oral: &gt;25 mg/kg

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REACH Reg. 01-2119980937-17

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

Quartz (SiO<sub>2</sub>) - CAS 14808-60-7 - C%: >=50 - <80:

The quartz contained in the product is classified as non-hazardous. Furthermore, being linked to the other liquid / pasty components of the mixture, it is not freely available during use. The final product has a pasty consistency and the limits of exposure to inhalable dusts are not relevant.

**SECTION 4. First aid measures****4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

**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**

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.

**M3000003F - BCR V PLUS/W/T COMP A****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 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.

Store in a well ventilated place, storage range temperature between 5°C and 30°C. Keeping the containers closed when not used. Do not smoke while handling. Keep far away from sources of heat, naked flames and sparks and other sources of ignition. Make sure that equipment is available for cooling the vessels, to prevent the danger of overpressure and overheating in the event of fire in the vicinity.

**7.3. Specific end use(s)**

Information not available

**M3000003F - BCR V PLUS/W/T COMP A****SECTION 8. Exposure controls/personal protection****8.1. Control parameters****Ethylene dimethacrylate**

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,139	mg/l
Normal value in marine water	0,014	mg/l
Normal value for fresh water sediment	1,6	mg/kg/d
Normal value for marine water sediment	0,16	mg/kg/d
Normal value for water, intermittent release	0,15	mg/l
Normal value of STP microorganisms	57	mg/l
Normal value for the terrestrial compartment	0,239	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				0,83 mg/kg bw/d				
Inhalation				1,45 mg/m <sup>3</sup>				2,45 mg/m <sup>3</sup>
Skin				0,83 mg/kg bw/d				1,3 mg/kg bw/d

**Methacrylic acid, monoester with propane 1,2 - diol**

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,9	mg/l
Normal value in marine water	0,9	mg/l
Normal value for fresh water sediment	6,28	mg/kg/d
Normal value for marine water sediment	6,28	mg/kg/d
Normal value for water, intermittent release	0,97	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,72	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				2,5 mg/kg bw/d				
Inhalation				8,8 mg/m <sup>3</sup>				14,7 mg/m <sup>3</sup>
Skin				2,5 mg/kg bw/d				4,2 mg/kg bw/d

**1,1'- (p-tolylimino) dipropan-2-ol**

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,017	mg/l
Normal value in marine water	0,0017	mg/l
Normal value for fresh water sediment	0,163	mg/kg/d

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Normal value for marine water sediment	0,0163	mg/kg/d						
Normal value for water, intermittent release	0,17	mg/l						
Normal value of STP microorganisms	0,199	mg/l						
Normal value for the terrestrial compartment	0,0226	mg/kg/d						
<b>Health - Derived no-effect level - DNEL / DMEL</b>								
	Effects on consumers	Effects on workers						
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,25 mg/kg bw/d				
Inhalation								2,47 mg/m3
Skin								0,7 mg/kg bw/d

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

**Quartz (SiO<sub>2</sub>):**

The quartz contained in the product is classified as non-hazardous. Furthermore, being linked to the other liquid / pasty components of the mixture, it is not freely available during use. The final product has a pasty consistency and the limits of exposure to inhalable dusts are not relevant.

**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.

**M3000003F - BCR V PLUS/W/T COMP A****SECTION 9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Properties	Value	Information
Appearance	Solid Pasty	
Colour	cream	
Odour	characteristic	
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	Not available	
Auto-ignition temperature	Not available	
pH	Not available	Reason for missing data:substance/mixture is non-soluble (in water)
Kinematic viscosity	Not available	
Solubility	insoluble in water	Reason for missing data:substance/mixture is non-soluble (in water)
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	1,60 - 1,80	
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

Information not available

**SECTION 10. Stability and reactivity****10.1. Reactivity**

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

**10.2. Chemical stability**

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

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To avoid the exposure on the sunlight.

**10.3. Possibility of hazardous reactions**

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

**10.4. Conditions to avoid**

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

**10.5. Incompatible materials**

Information not available

**10.6. Hazardous decomposition products**

Information not available

**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

Information not available

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

Information not available



**M3000003F - BCR V PLUS/W/T COMP A**Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture: Not classified (no significant component)  
ATE (Oral) of the mixture: >2000 mg/kg  
ATE (Dermal) of the mixture: Not classified (no significant component)

## Ethylene dimethacrylate

LD50 (Dermal): > 2000 mg/kg RAT  
LD50 (Oral): > 8700 mg/kg RAT

## Methacrylic acid, monoester with propane 1,2 - diol

LD50 (Dermal): > 5000 mg/kg RBT  
LD50 (Oral): > 2000 mg/kg RAT

## 1,1'- (p-tolylimino) dipropan-2-ol

LD50 (Dermal): > 2000 mg/kg RAT  
LD50 (Oral): > 25 mg/kg 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

Sensitising for the skin

Respiratory sensitization

Information not available



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Skin sensitization

Information not available

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

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

May cause respiratory irritation

Target organs



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Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

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**

Ethylene dimethacrylate

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LC50 - for Fish	> 15,95 mg/l/96h
EC50 - for Crustacea	> 44,9 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 17,3 mg/l/72h
Chronic NOEC for Crustacea	> 7,22 mg/l
Chronic NOEC for Algae / Aquatic Plants	> 6,93 mg/l

**Methacrylic acid, monoester with propane  
1,2 - diol**

LC50 - for Fish	> 493 mg/l/96h
EC50 - for Crustacea	> 143 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 97,2 mg/l/72h
Chronic NOEC for Crustacea	> 45,2 mg/l

**1,1'- (p-tolylimino) dipropan-2-ol**

LC50 - for Fish	> 17 mg/l/96h
EC50 - for Crustacea	> 28 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 245 mg/l/72h
EC10 for Algae / Aquatic Plants	> 57,8 mg/l/72h

**12.2. Persistence and degradability**

Ethylene dimethacrylate  
Rapidly degradable

Methacrylic acid, monoester with propane  
1,2 - diol  
Rapidly degradable

1,1'- (p-tolylimino) dipropan-2-ol  
Entirely degradable

**12.3. Bioaccumulative potential**

Ethylene dimethacrylate  
Partition coefficient: n-octanol/water 2,4 Log Kow

1,1'- (p-tolylimino) dipropan-2-ol  
Partition coefficient: n-octanol/water 2,1 Log Kow

**12.4. Mobility in soil**

1,1'- (p-tolylimino) dipropan-2-ol  
Partition coefficient: soil/water 60 l/kg

**12.5. Results of PBT and vPvB assessment**



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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**

Non-hardened material (such as expired or damaged products and/or rejects): e.g.

08 04 09\* Glue and sealing materials waste containing organic solvents or other dangerous substances

Hardened material, e.g.:

08 04 10 Glue and sealing materials waste or other dangerous substances, other than classified under 08 04 09.

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

15 01 10\* Packaging containing residues of or contaminated by dangerous substances

**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



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**14.3. Transport hazard class(es)**

Not applicable

**14.4. Packing group**

Not applicable

**14.5. Environmental hazards**

Not applicable

**14.6. Special precautions for user**

Not applicable

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

Information not relevant

**SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: None

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

None

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

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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:

<b>Acute Tox. 2</b>	Acute toxicity, category 2
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H300</b>	Fatal if swallowed.
<b>H319</b>	Causes serious eye irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H412</b>	Harmful to aquatic life with long lasting effects.

**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

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- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

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





**M3000003F - BCR V PLUS/W/T COMP A**

Changes to previous review:  
The following sections were modified:  
01 / 02 / 03 / 08 / 09 / 11 / 12 / 15 / 16.



## Safety Data Sheet

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

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

#### 1.1. Product identifier

Code: **M2000022F**  
Product name: **BCR V PLUS/W/T COMP B**  
Chemical name and synonym: **Mastic based peroxide**  
UFI: **PE00-F0V9-U00F-YNXD**

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

Intended use: **Bi-component injection system for chemical anchor on construction materials.**

#### 1.3. Details of the supplier of the safety data sheet

Name: **Bossong SpA**  
Full address: **via E. Fermi, 51**  
District and Country: **24050 Grassobbio (BG)  
Italia**

Tel. **035-3846011**

Fax **035-3846012**

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

**tek@bossong.com**

#### 1.4. Emergency telephone number

For urgent inquiries refer to

**Ospedale NIGUARDA Milano tel. +39 0266101029**  
**<http://www.centroantiveleni.org/>**

Centro Antiveleni di Bergamo (CAV Ospedali Riuniti) tel: 800 883300

Centro Antiveleni di Roma (CAV Policlinico Gemelli) tel: +39 06 3054343

### 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 sensitization, category 1A

H317

May cause an allergic skin reaction.

#### 2.2. Label elements

**M2000022F – BCR V- PLUS/W/T COMP B**

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.  
**H317** May cause an allergic skin reaction.

Precautionary statements:

**P101** If medical advice is needed, have product container or label at hand.  
**P102** Keep out of reach of children.  
**P280** Wear protective gloves / eye protection / face protection.  
**P302+P352** IF ON SKIN: wash with plenty of water / . . .  
**P333+P313** If skin irritation or rash occurs: Get medical advice / attention.  
**P501** Dispose of contents/container in accordance with national regulations.

**Contains:** Dibenzoyl peroxide

### 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  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>Dibenzoyl peroxide</b>		
CAS 94-36-0	$10 \leq x < 17$	Org. Perox B H241, Eye Irrit. 2 H319, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10
EC 202-327-6		
INDEX 617-008-00-0		
REACH Reg. 01-2119511472-50		

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



Quartz (SiO<sub>2</sub>) - CAS 14808-60-7 - C%: >=50 - <80:

The quartz contained in the product is classified as non-hazardous. Furthermore, being linked to the other liquid / pasty components of the mixture, it is not freely available during use. The final product has a pasty consistency and the limits of exposure to inhalable dusts are not relevant.

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

**EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

**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

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.

**M2000022F – BCR V- PLUS/W/T COMP B**

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 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**

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. 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 ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

Store in a well ventilated place, storage range temperature between 5°C and 30°C. Keeping the containers closed when not used. Do not smoke while handling. Keep far away from sources of heat, naked flames and sparks and other sources of ignition. Make sure that equipment is available for cooling the vessels, to prevent the danger of overpressure and overheating in the event of fire in the vicinity.

**7.3. Specific end use(s)**

Information not available

**SECTION 8. Exposure controls/personal protection****8.1. Control parameters**

Regulatory References:

TLV-ACGIH

ACGIH 2021

**Dibenzoyl peroxide  
Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	mg/m3 ppm

**M2000022F – BCR V- PLUS/W/T COMP B**

TLV-ACGIH

5

## Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00002	mg/l
Normal value in marine water	0,000002	mg/l
Normal value for fresh water sediment	0,0127	mg/kg/d
Normal value for marine water sediment	0,00127	mg/kg/d
Normal value for water, intermittent release	0,000602	mg/l
Normal value of STP microorganisms	0,35	mg/l
Normal value for the terrestrial compartment	0,0025	mg/kg/d

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers		
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local
Oral				2 mg/kg bw/d			
Inhalation							39 mg/m3
Skin							13,3 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.

Quartz (SiO<sub>2</sub>):

The quartz contained in the product is classified as non-hazardous. Furthermore, being linked to the other liquid / pasty components of the mixture, it is not freely available during use. The final product has a pasty consistency and the limits of exposure to inhalable dusts are not relevant.

**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).

**M2000022F – BCR V- PLUS/W/T COMP B****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	Value	Information
Appearance	Solid Pasty	
Colour	black	
Odour	characteristic	
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	Not available	
Auto-ignition temperature	Not available	
pH	Not available	Reason for missing data:substance/mixture is non-soluble (in water)
Kinematic viscosity	Not available	
Solubility	insoluble	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	1,50 - 1,70 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**

Ossigeno attivo (%) < 1

**M2000022F – BCR V- PLUS/W/T COMP B****SECTION 10. Stability and reactivity****10.1. Reactivity**

Information not available

**10.2. Chemical stability**

The product is stable if stored in original containers at temperatures lower than the self accelerated decomposition temperature (SADT).

To avoid the exposure on the sunlight.

**10.3. Possibility of hazardous reactions**

Information not available

**10.4. Conditions to avoid**

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition. Avoid transferring into containers that may have been contaminated with other substances. Avoid storing close to inflammable or combustible products.

**10.5. Incompatible materials**

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to the formation of explosive peroxides or other potentially hazardous substances.

**SECTION 11. Toxicological information****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

Information not available

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





**M2000022F – BCR V- PLUS/W/T COMP B**

Information not available

Interactive effects

Information not available

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)

Dibenzoyl peroxide

LD50 (Oral):	> 2000 mg/kg RAT
LC50 (Inhalation mists/powders):	> 24,3 mg/l/4h RAT

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Respiratory sensitization

Information not available

Skin sensitization

Information not available



**M2000022F – BCR V- PLUS/W/T COMP B**

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

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

**M2000022F – BCR V- PLUS/W/T COMP B**Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

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**

Dibenzoyl peroxide

LC50 - for Fish > 0,0602 mg/l/96h (OECD TG 203)

EC50 - for Crustacea > 0,11 mg/l/48h (OECD TG 202)

EC50 - for Algae / Aquatic Plants > 0,0711 mg/l/72h (OECD TG 201)

EC10 for Crustacea > 0,001 mg/l/28d (OECD TG 211)

Chronic NOEC for Fish > 0,0316 mg/l 96 h

**M2000022F – BCR V- PLUS/W/T COMP B**

Chronic NOEC for Algae / Aquatic Plants > 0,02 mg/l 72 h

mixture/product

LC50 - Fish> 100 mg / l / 96h fish (OECD TG 203)

EC50 - Crustaceans> 100 mg / l / 48h daphia magna (OECD TG 202)

EC50 - Algae / Aquatic Plants> 100 mg / l / 72h algae - Pseudokirchneriella subcapitata (OECD TG 201 Acute and Chronic)

NOEC Chronic Fish> 100 mg / l / 28 d fish, Juvenile Growth Test (OECD TG 215).

**12.2. Persistence and degradability**

Dibenzoyl peroxide

Rapidly degradable

71% in water 28 d (OECD TG 301 D)

**12.3. Bioaccumulative potential**

Dibenzoyl peroxide

Partition coefficient: n-octanol/water

3,2 Log Kow (OECD TG 117)

**12.4. Mobility in soil**

Dibenzoyl peroxide

Partition coefficient: soil/water

3,8 (OECD TG 121)

**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**

Non-hardened material (such as expired or damaged products and/or rejects): e.g.

08 04 09\* Glue and sealing materials waste containing organic solvents or other dangerous substances

Hardened material, e.g.:

08 04 10 Glue and sealing materials waste or other dangerous substances, other than classified under 08 04 09.

Contaminated packaging

Untaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

15 01 10\* Packaging containing residues of or contaminated by dangerous substances

**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)

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



**M2000022F – BCR V- PLUS/W/T COMP B**

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

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

None

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:

**M2000022F – BCR V- PLUS/W/T COMP B**

<b>Org. Perox B</b>	Organic peroxide, type B
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Skin Sens. 1A</b>	Skin sensitization, category 1A
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>H241</b>	Heating may cause a fire or explosion.
<b>H319</b>	Causes serious eye irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.

**LEGEND:**

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

**GENERAL BIBLIOGRAPHY**

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

- 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.

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**Changes to previous review:**

The following sections were modified:

09.