

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

### 1.1. Product identifier

Product name : VINOBUONO 1  
Product code: refer to sales department

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

Clarifying Agents

Sectors of use:

Industrial Manufacturing[SU3], Manufacture of food products[SU4], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:

Process aid for enological use

Not recommended uses

Do not use for purposes other than those listed

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

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#### **1.4. Emergency telephone number**

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## **SECTION 2. Hazards identification**

### **2.1. Classification of the substance or mixture**

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

None

Hazard Class and Category Code(s):

Non hazardous

Hazard statement Code(s):

Non hazardous

### **2.2. Label elements**

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

None

Hazard statement Code(s):

Non hazardous

Supplemental Hazard statement Code(s):

EUH210 - Safety data sheet available on request.

Precautionary statements:

None in particular.

Contains:

Information concerning the components: Saccharomyces Cerevisiae yeast. It contains sorbitan monostearate (E491), ammonium sulfate 29.1%, cellulose 24.6%, dibasic ammonium phosphate 9.2%, thiamine hydrochloride (vitamin B1) 0.07%, neutral tartrate potassium, activated bentonite.

Only for professional use. Food use, oenological use. In accordance with current regulations on the specific matter.

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### 2.3. Other hazards

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

No information on other hazards

## SECTION 3. Composition/information on ingredients

### 3.1 Substances

Irrilevant

### 3.2 Mixtures

No dangerous substance to report.

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
Cellulose substance for which there are Community workplace exposure limits	> 20 <= 30%			9004-34-6	232-674-9	
Bentonite	<= 0,1%			1302-78-9	215-108-5	

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

Inhalation:

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product):.

Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product):.

Wash immediately and thoroughly with running water for at least 10 minutes.

Ingestion:

Not hazardous. It's possible to give activated charcoal in water or medicinal mineral vaseline oil.

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

No data available.

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

No data available.

## SECTION 5. Firefighting measures

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### **5.1. Extinguishing media**

Suggested extinguishing media:

Water spray, CO<sub>2</sub>, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

### **5.2. Special hazards arising from the substance or mixture**

No data available.

### **5.3. Advice for firefighters**

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

## **SECTION 6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear gloves and protective clothing

6.1.2 For emergency responders:

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provide a sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

### **6.2. Environmental precautions**

Contain spills

Inform the competent authorities.

Dispose of the waste material in compliance with the regulations

### **6.3. Methods and material for containment and cleaning up**

6.3.1 Containment:

Recover the product for reuse, if possible, or for elimination.

6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

### **6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

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## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

At work do not eat or drink.  
See also paragraph 8 below.

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

Keep in original container closed tightly. Do not store in open or unlabelled containers.  
Keep containers upright and safe by avoiding the possibility of falls or collisions.  
Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

### 7.3. Specific end use(s)

Industrial Manufacturing:  
Handle with extreme caution.  
Store in a well ventilated place away from heat sources.

Manufacture of food products:  
Handle with care.  
Store in a clean, dry, ventilated area away from heat and direct sunlight.  
Keep container tightly closed.

Public domain (administration, education, entertainment, services, craftsmen):  
Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

=====  
Related to contained substances:

Cellulose:  
Limit value - Eight hours  
(ppm)/(mg/m<sup>3</sup>)

Australia: x/10(1)  
Belgio: x/10  
Canada – Ontario: x/10  
Canada - Québec: x/10  
France: x/10 inhalable aerosol  
Ireland: x/10(1); x/4(2)  
Latvia: x/2  
New Zealand: x/10(1)  
People's Republic of China: x/10  
Singapore: x/10  
South Korea: x/10  
Spain: x/10 inhalable aerosol  
Switzerland: x/3 respirable aerosol  
USA - NIOSH: x/10(1); x/5(2)  
USA - OSHA: x/15 total dust; 5 respirable dust  
United Kingdom: : x/10 inhalable aerosol; 4 respirable aerosol

Limit value - Short term  
(ppm)/(mg/m<sup>3</sup>)

Ireland: x/20 (1)(3)  
United Kingdom: x/20 inhalable aerosol

**Remarks:**

Australia: (1) This value is for inhalable dust containing no asbestos and <1 % crystalline silica.  
Ireland: (1) Inhalable fraction (2) Respirable fraction (3) 15 minutes reference period  
New Zealand: (1) The value for inhalable dust containing no asbestos and less than 1% free silica.  
USA – NIOSH: (1) Total dust (2) Respirable aer

Bentonite attivata  
\*\*\*\* Not translated \*\*\*\*

**8.2. Exposure controls**



Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Manufacture of food products:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

**8.2.2 Individual protection measures:**

(a) Eye / face protection

When handling the pure product use safety glasses (EN 166).

(b) Skin protection

(i) Hand protection

When handling the pure product use protective rubber or latex gloves, or other protective equipment, according to the instructions of the RSPP

(ii) Other

When handling the pure product, wear full protective clothing (generic workwear) or other protective equipment, according to the instructions of the RSPP

(c) Respiratory protection

Not needed for normal use.

During manual operations in the event of insufficient ventilation, use a mask (UNI EN 149) with an FFP dust filter commensurate with environmental hygienic conditions, unless otherwise specified by the RSPP.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

=====

Related to contained substances:

Bentonite:

Personal protection

Respiratory protection: not recommended the use of special equipment respiratory protection under normal conditions of use provided with adequate ventilation.

Skin protection: none.

Eye protection: Bench-specific data are not available for eye irritation, wear eye protection devices adapted to the conditions of use when handling

This material.

Ingestion: ingestion is unlikely.

Industrial hygiene: Ensure adequate ventilation to minimize concentrations of dust and/or fumes

## SECTION 9. Physical and chemical properties

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

Physical and chemical properties	Value	Determination method
Appearance	white powder mixed with yeasts	
Odour	not determined as it is considered not relevant for the characterization of the product	
Odour threshold	not determined as it is considered not relevant for the characterization of the product	
pH	not determined as it is considered not relevant for the characterization of the product	
Melting point/freezing point	not determined as it is considered not relevant for the characterization of the product	
Initial boiling point and boiling range	not determined as it is considered not relevant for the characterization of the product	
Flash point	not determined as it is considered not relevant for the characterization of the product	ASTM D92
Evaporation rate	not determined as it is considered not relevant for the characterization of the product	
Flammability (solid, gas)	not determined as it is considered not relevant for the characterization of the product	
Upper/lower flammability or explosive limits	not determined as it is considered not relevant for the characterization of the product	
Vapour pressure	not determined as it is considered not relevant for the characterization of the product	
Vapour density	not determined as it is considered not relevant for the characterization of the product	
Relative density	0,50 ± 0,05 (20°C)	
Solubility	not determined as it is considered not relevant for the characterization of the product	
Water solubility	not determined as it is considered not relevant for the characterization of the product	
Partition coefficient: n-octanol/water	not determined as it is considered not relevant for the characterization of the product	
Auto-ignition temperature	not determined as it is considered not relevant for the characterization of the product	
Decomposition temperature	not determined as it is considered not relevant for the characterization of the product	
Viscosity	not determined as it is considered not relevant for the characterization of the product	
Explosive properties	not determined as it is considered not relevant for the characterization of the product	

Physical and chemical properties	Value	Determination method
Oxidising properties	not determined as it is considered not relevant for the characterization of the product	

## 9.2. Other information

No data available.

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

=====  
 Related to contained substances:  
 Bentonite:  
 None under normal conditions.

### 10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

### 10.3. Possibility of hazardous reactions

There are no hazardous reactions

### 10.4. Conditions to avoid

Nothing to report

### 10.5. Incompatible materials

None in particular.

### 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

## SECTION 11. Toxicological information

### 11.1. Information on toxicological effects

ATE(mix) oral = ∞  
 ATE(mix) dermal = ∞  
 ATE(mix) inhal = ∞

(a) acute toxicity: Cellulose: Ingestion-rat LD50 (mg/kg/bw 24h): >5000

Skin contact-LC50 rat/coniglio (mg/kg/bw 24h): >2000



Inhalation-rat LD50 (mg/l/4h): >5800  
(b) skin corrosion/irritation Cellulose: Non-corrosive  
Cellulose: Non-irritating  
(c) serious eye damage/irritation: Cellulose: Non-corrosive  
Cellulose: Non-irritating  
(d) respiratory or skin sensitization: Cellulose: Non-Sensitizing  
(e) germ cell mutagenicity: Cellulose: Not available  
(f) carcinogenicity: Cellulose: Not available  
(g) reproductive toxicity: Cellulose: Not available  
(h) specific target organ toxicity (STOT) single exposure: Cellulose: Not available  
(i) specific target organ toxicity (STOT) repeated exposure Cellulose: Not available  
(j) aspiration hazard: Cellulose: Not available

**Health Hazards:**

Eye contact: Accidental contact of product with eyes may cause irritation.  
Skin Contact: Product is not an irritant. Prolonged or repeated contact may defeat and irritate the skin and cause dermatitis in some cases.  
Ingestion: The ingested product may cause irritation of the mucous membranes of the throat and digestive system leading to digestive symptoms and abnormal bowel disorders.  
Inhalation: Prolonged exposure to vapours or mists of product may cause respiratory irritation.

**SECTION 12. Ecological information**

**12.1. Toxicity**

=====  
Related to contained substances:  
Bentonite:  
Not available

Use according to good working practices and avoid to disperse the product into the environment.

**12.2. Persistence and degradability**

=====  
Related to contained substances:  
Cellulose:  
Not persistent  
  
Bentonite:  
Not available

**12.3. Bioaccumulative potential**

=====  
Related to contained substances:  
Cellulose:  
There is no evidence of bioaccumulation potential.  
  
Bentonite:  
Not available

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#### **12.4. Mobility in soil**

=====  
Related to contained substances:

Cellulose:  
Not available

Bentonite:  
Not available

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

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

#### **12.6. Other adverse effects**

No adverse effects

### **SECTION 13. Disposal considerations**

#### **13.1. Waste treatment methods**

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.  
Recover if possible. Operate according to local or national regulations

### **SECTION 14. Transport information**

#### **14.1. UN number**

Not included in the field of application of regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

#### **14.2. UN proper shipping name**

None

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

None

#### **14.4. Packing group**

None

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#### **14.5. Environmental hazards**

None

#### **14.6. Special precautions for user**

No data available.

#### **14.7. Transport in bulk according to Annex II of MARPOL73/78 and IBC Code**

Transport in bulk is not foreseen

### **SECTION 15. Regulatory information**

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

Restrictions relating to the product or contained substances (All. XVII Reg. EC 1907/2006): not applicable  
Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC  
Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC  
Reg. EC 648/04: see 2.2  
Reg. (EU) n. 1169/2011: see 2.2

#### **15.2. Chemical safety assessment**

No chemical safety assessment was carried out by the supplier

### **SECTION 16. Other information**

#### **16.1. Other information**

Classification based on data of all mixture components

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.

Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.

Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Procedure used to classify under CLP mixture (Reg . EC 1272/2008): irrilevant

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relative au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimat

BFC: BioconCentration Factor

BOD: Biochemical Oxigen Demand

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CAS: Chemical Abstract Service number  
CAP: Centre AntiPoison  
CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)  
CL50/LC50: Lethal Concentration 50  
DL50/LD50: Lethal Dose 50  
COD: Chemical Oxygen Demand  
DNEL: Derived No Effect Level  
EC50: half maximal Effective Concentration  
ERC: Environment Release Classes  
EU/UE: European Union  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods code  
Kow: Octanol water partition coefficient  
NOEC: No Observed Effect Concentration  
OEL: Occupational Exposure Limit  
PBT: Persistent Bioaccumulative and Toxic  
PC: Product Categories  
PNEC: Predicted No Effect Concentration  
PROC: Process Categories  
RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)  
STOT: Target Organ Systemic Toxicity  
STOT (RE): Repeated Exposure  
STOT (SE): Single Exposure  
STP: Sewage Treatment Plants  
SU: Sector of Use  
SVCH: Substance of Very High Concern  
TLV: Threshold Limit Value  
vPvB: Very Persistent Very Bioaccumulative

References and Sources:

- ECHA Registered Substances:
  - <https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>
- SDS supplier
- GESTIS DNEL Database: <http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp>
- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

This msds was made in good faith by AEB technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

\*\*\* this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: labeling variation.

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**SECTION 1. Identification of the substance/mixture and of the company/enterprise**

**1.1. Product identifier**

Product name : VINOBUONO 2  
Product code: refer to sales department

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

Clarifying Agents

Sectors of use:

Industrial Manufacturing[SU3], Manufacture of food products[SU4], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:

Process aid for enological use

Not recommended uses

Do not use for purposes other than those listed

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

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#### 1.4. Emergency telephone number

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## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:  
GHS05

Hazard Class and Category Code(s):  
Eye Dam. 1

Hazard statement Code(s):  
H318 - Causes serious eye damage.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):  
GHS05 - Danger

Hazard statement Code(s):  
H318 - Causes serious eye damage.

Supplemental Hazard statement Code(s):  
EUH031 - Contact with acids liberates toxic gas (SO<sub>2</sub>)

Precautionary statements:

Prevention

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or a doctor.



**Contains:**

Potassium metabisulfite

Information concerning the components: activated bentonite, potassium caseinate (<Milk and products thereof>in compliance with Regulation (EU) No 1169/2011 - Annex II and subsequent additions and modifications), potassium metabisulfite 19.5% (<Sulfur dioxide and sulfites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO<sub>2</sub>>in compliance with Regulation (EU) No 1169/2011 - Annex II and subsequent additions and modifications). Only for professional use. Food use, oenological use. In accordance with current regulations on the specific matter.

**2.3. Other hazards**

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

The use of this chemical agent involves the obligation of "risk assessment" by the employer in accordance with the provisions of Dlgs n. 81. April 9, 2008. Workers exposed to this chemical agent should not be subject to health surveillance if the results of the risk assessment show that, depending on the type and quantity of dangerous chemical agent and method and frequency of exposure to the agent, there is only a "moderate Risk" for the health and safety of workers and that the measures laid down in the Decree are sufficient to reduce the risk.

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

**3.1 Substances**

Irrilevant

**3.2 Mixtures**

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
Bentonite	> 30 <= 50%			1302-78-9	215-108-5	
Potassium metabisulfite	> 10 <= 20%	EUH031; Eye Dam. 1, H318		16731-55-8	240-795-3	01-2119537 422-45-XXX X

**SECTION 4. First aid measures**

**4.1. Description of first aid measures**

**Inhalation:**

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

**Direct contact with skin (of the pure product):**

Wash thoroughly with soap and running water.

**Direct contact with eyes (of the pure product):**

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately

Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

**Ingestion:**

Not hazardous. It's possible to give activated charcoal in water or medicinal mineral vaseline oil.

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

No data available.

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

Immediately call a POISON CENTER or a doctor.

### **SECTION 5. Firefighting measures**

#### **5.1. Extinguishing media**

Suggested extinguishing media:

Water spray, CO<sub>2</sub>, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

#### **5.2. Special hazards arising from the substance or mixture**

No data available.

#### **5.3. Advice for firefighters**

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

### **SECTION 6. Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provide a sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

#### **6.2. Environmental precautions**

Contain spills

Inform the competent authorities.

Dispose of the waste material in compliance with the regulations



### **6.3. Methods and material for containment and cleaning up**

#### 6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing  
Recover the product for reuse, if possible, or for elimination.

#### 6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

#### 6.3.3 Other information:

None in particular.

### **6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

## **SECTION 7. Handling and storage**

### **7.1. Precautions for safe handling**

Wear protective gloves/protective clothing/eye protection/face protection.

At work do not eat or drink.

See also paragraph 8 below.

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

Keep in original container closed tightly. Do not store in open or unlabelled containers.

Keep containers upright and safe by avoiding the possibility of falls or collisions.

Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

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

Industrial Manufacturing:

Handle with extreme caution.

Store in a well ventilated place away from heat sources.

Manufacture of food products:

Handle with care.

Store in a clean, dry, ventilated area away from heat and direct sunlight.

Keep container tightly closed.

Public domain (administration, education, entertainment, services, craftsmen):

Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

## **SECTION 8. Exposure controls/personal protection**

### **8.1. Control parameters**

Activated bentonite:

INHALABLE, DUST

Limit value - Eight hours

(Ppm) / (mg / m<sup>3</sup>)

Austria: x / 10

Belgium: x / 10

Denmark: x / 10

France: x / 10  
Germany (AGS): x / 10 (1) (2) (3)  
Germany (DFG): x / 4  
Hungary: x / 10  
Ireland: x / 10  
Singapore: x / 10  
Spain: x / 10  
Sweden: x / 10  
Switzerland: x / 10  
USA - OSHA: x / 15

#### RESPIRABLE DUST

Limit value - Eight hours

Austria: x / 5  
Belgium: x / 3  
France: x / 5 respirable aerosol  
Germany (AGS): x / 1.25 (1) (2) (3) (4) (5)  
Germany (DFG): x / 1.5  
Hungary: x / 6  
Ireland: x / 4  
Spain: x / 3  
Sweden: x / 5  
Switzerland: x / 3  
USA - OSHA: x / 5

#### Remarks

##### INHALABLE DUST

Germany (AGS): (1) Insoluble particulates (2) not applicable to ultra-fine dusts with specific toxicity (3) limit value is a general upper limit for technical measures, as long as no specific regulations for toxic or carcinogenic substance are available

##### RESPIRABLE DUST

France: Bold type: Restrictive statutory limit values

Germany (AGS): (1) Insoluble particulates (2) not applicable to ultra-fine dusts with specific toxicity (3) limit value is a general upper limit for technical measures, as long as no specific regulations for toxic or carcinogenic substances are available (4) the limit value was derived for an average density of 2.5 mg / m<sup>3</sup> (5) at work areas in the art of the art but the LV is still not adhered, the old LV can be applied to a transitional period until 31st December 2018 (8 h - LV: 3.0 mg / m<sup>3</sup>, 15 minutes average value: 6.0 mg / m<sup>3</sup>)  
Germany (DFG): Insoluble particulate

ACGIH believes that even biologically inert particles, insoluble or not very soluble, can have adverse effects and, therefore, recommends that the concentration of these dusts in the air be kept below: 3mg / m<sup>3</sup>, for respirable particles; 10mg / m<sup>3</sup>, for inhalable particles, at which time a TLV will be established for the particular substance.

Potassium metabisulfite:

ACGIH - STEL: 0.25 ppm - Notes: (SO<sub>2</sub>)  
EU - TWA: 0.5 ppm - STEL: 1 ppm - Notes: (SO<sub>2</sub>)

- Substance: Potassium metabisulfite

#### DNEL

Systemic effects Long term Workers inhalation = 263 (mg/m<sup>3</sup>)  
Systemic effects Long term Consumers inhalation = 78 (mg/m<sup>3</sup>)  
Systemic effects Long term Consumers oral = 10 (mg/kg bw/day)

#### PNEC

Sweet water = 1,17 (mg/l)  
Sea water = 0,12 (mg/l)  
STP = 88,1 (mg/l)

**8.2. Exposure controls**



Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Manufacture of food products:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

**8.2.2 Individual protection measures:**

(a) Eye / face protection

When handling the pure product use safety glasses (EN 166).

(b) Skin protection

(i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

(ii) Other

When handling the pure product, wear full protective clothing (generic workwear / antacid, safety shoes S3-EN ISO 20345) or other protective equipment, according to the instructions of the RSPP

(c) Respiratory protection

Not needed for normal use.

During manual operations in the event of insufficient ventilation, use a mask (UNI EN 149) with an FFP dust filter commensurate with environmental hygienic conditions, unless otherwise specified by the RSPP.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

=====

Related to contained substances:

Bentonite:

Personal protection

Respiratory protection: not recommended the use of special equipment respiratory protection under normal conditions of use provided with adequate ventilation.

Skin protection: none.

Eye protection: Bench-specific data are not available for eye irritation, wear eye protection devices adapted to the conditions of use when handling

This material.

Ingestion: ingestion is unlikely.

Industrial hygiene: Ensure adequate ventilation to minimize concentrations of dust and/or fumes

**SECTION 9. Physical and chemical properties**

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

Physical and chemical properties	Value	Determination method
Appearance	beige powder	
Odour	not determined as it is considered not relevant for the characterization of the product	
Odour threshold	not determined as it is considered not relevant for the characterization of the product	
pH	6.5 ± 0.5 (20 ° C; sol. 5%)	
Melting point/freezing point	not determined as it is considered not relevant for the characterization of the product	
Initial boiling point and boiling range	not determined as it is considered not relevant for the characterization of the product	
Flash point	not determined as it is considered not relevant for the characterization of the product	ASTM D92
Evaporation rate	not determined as it is considered not relevant for the characterization of the product	
Flammability (solid, gas)	not determined as it is considered not relevant for the characterization of the product	
Upper/lower flammability or explosive limits	not determined as it is considered not relevant for the characterization of the product	
Vapour pressure	not determined as it is considered not relevant for the characterization of the product	
Vapour density	not determined as it is considered not relevant for the characterization of the product	
Relative density	0.75 ± 0.05 (20 ° C)	
Solubility	not determined as it is considered not relevant for the characterization of the product	
Water solubility	not determined as it is considered not relevant for the characterization of the product	
Partition coefficient: n-octanol/water	not determined as it is considered not relevant for the characterization of the product	
Auto-ignition temperature	not determined as it is considered not relevant for the characterization of the product	
Decomposition temperature	not determined as it is considered not relevant for the characterization of the product	
Viscosity	not determined as it is considered not relevant for the characterization of the product	
Explosive properties	not determined as it is considered not relevant for the characterization of the product	
Oxidising properties	not determined as it is considered not relevant for the characterization of the product	

## 9.2. Other information

No data available.

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

=====

Related to contained substances:

Bentonite:

None under normal conditions.

**10.2. Chemical stability**

No hazardous reaction when handled and stored according to provisions.

**10.3. Possibility of hazardous reactions**

There are no hazardous reactions

**10.4. Conditions to avoid**

Nothing to report

**10.5. Incompatible materials**

No one in particular

**10.6. Hazardous decomposition products**

Does not decompose when used for intended uses.

**SECTION 11. Toxicological information**

**11.1. Information on toxicological effects**

ATE(mix) oral = ∞  
ATE(mix) dermal = ∞  
ATE(mix) inhal = ∞

(a) acute toxicity: Potassium metabisulfite: Ingestion-rat LD50 (mg/kg/bw 24h): > 2000

Skin contact-LC50 rat/coniglio (mg/kg/bw 24h): > 2000

Inhalation-rat LD50 (mg/l/4h): > 5.5

(b) skin corrosion/irritation Potassium metabisulfite: Non-corrosive

Potassium metabisulfite: Non-irritating

(c) serious eye damage/irritation: If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

Potassium metabisulfite: Corrosive

Potassium metabisulfite: Irritating

(d) respiratory or skin sensitization: Potassium metabisulfite: non-sensitizing

(e) germ cell mutagenicity: Potassium metabisulfite: non-mutagenic

(f) carcinogenicity: Potassium metabisulfite: non-carcinogenic

(g) reproductive toxicity: Potassium metabisulfite: non-toxic for reproduction

(h) specific target organ toxicity (STOT) single exposure: Potassium metabisulfite: not available

(i) specific target organ toxicity (STOT) repeated exposure Potassium metabisulfite: not available

(j) aspiration hazard: Potassium metabisulfite: not available

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Related to contained substances:  
Bentonite:  
Oral rat Ld50 [mg/kg]: Data not available

## SECTION 12. Ecological information

### 12.1. Toxicity

=====  
Related to contained substances:  
Bentonite:  
Not available

Potassium metabisulfite:  
Acute toxicity-fish LC50 (mg/l/83d): 464-1000  
Acute toxicity-crustacea EC50 (mg/l/48 h): 89  
Acute algae toxicity ErC50 (mg/l/72-69): 43.8

Use according to good working practices and avoid to disperse the product into the environment.

### 12.2. Persistence and degradability

=====  
Related to contained substances:  
Bentonite:  
Not available

Potassium metabisulfite:  
not available

### 12.3. Bioaccumulative potential

=====  
Related to contained substances:  
Bentonite:  
Not available

Potassium metabisulfite:  
not available

### 12.4. Mobility in soil

=====  
Related to contained substances:  
Bentonite:  
Not available

Potassium metabisulfite:  
not available

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

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

### **12.6. Other adverse effects**

No adverse effects

## **SECTION 13. Disposal considerations**

### **13.1. Waste treatment methods**

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.  
Recover if possible. Operate according to local or national regulations

## **SECTION 14. Transport information**

### **14.1. UN number**

Not included in the field of application of regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

### **14.2. UN proper shipping name**

None

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

None

### **14.4. Packing group**

None

### **14.5. Environmental hazards**

None

### **14.6. Special precautions for user**

No data available.

### **14.7. Transport in bulk according to Annex II of MARPOL73/78 and IBC Code**

Transport in bulk is not foreseen

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## SECTION 15. Regulatory information

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

Restrictions relating to the product or contained substances (All. XVII Reg. EC 1907/2006): not applicable  
Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC  
Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC  
Reg. EC 648/04: see 2.2  
Reg. (EU) n. 1169/2011: see 2.2

REGULATION (EU) No 1357/2014 - waste:  
HP4 - Irritant — skin irritation and eye damage

### 15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

## SECTION 16. Other information

### 16.1. Other information

Description of hazard statements set out in paragraph 3  
H318 = Causes serious eye damage.

Classification based on data of all mixture components

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.  
Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.  
Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.  
Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)  
Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Procedure used to classify under CLP mixture (Reg. EC 1272/2008): Calculation method

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relative au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimati

BFC: BioconCentration Factor

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50

COD: Chemical Oxygen Demand



DNEL: Derived No Effect Level  
EC50: half maximal Effective Concentration  
ERC: Environment Release Classes  
EU/UE: European Union  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods code  
Kow: Octanol water partition coefficient  
NOEC: No Observed Effect Concentration  
OEL: Occupational Exposure Limit  
PBT: Persistent Bioaccumulative and Toxic  
PC: Product Categories  
PNEC: Predicted No Effect Concentration  
PROC: Process Categories  
RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)  
STOT: Target Organ Systemic Toxicity  
STOT (RE): Repeated Exposure  
STOT (SE): Single Exposure  
STP: Sewage Treatment Plants  
SU: Sector of Use  
SVCH: Substance of Very High Concern  
TLV: Threshold Limit Value  
vPvB: Very Persistent Very Bioaccumulative

References and Sources:

- ECHA Registered Substances:
- <https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>
- SDS supplier
- GESTIS DNEL Database: <http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp>
- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

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Changes to the previous edition: labeling variation.

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