



lumina

3D printing resin for fabrication of dental spacers

Safety Data Sheet

Created on: 02.09.2021

Valid from: 02.09.2021

1. Description of the substance or mixture and the company

1.1. Product identifier: Additive plastic

1.2 Application: Methacrylate-based resin 3D printing systems with 385 nm or 405 nm light sources for fabrication of dental spacers.

1.2 Manufacturer: dentona AG
Otto-Hahn-Str. 27
44227 Dortmund
Tel.: 0049 231 5556 0
Fax: 0049 231 5556 30
E-mail: info@dentona.de
Internet: www.dentona.de

1.4 Emergency number: Germany: +49 30 30686700
Austria: +43 1 406 43 43, +43 1 406 68 98
Belgium: +32 070 245 245
Bulgaria: +359 2 9154 409
Croatia: +385 1 2348 342
Cyprus: +357 22 408 636, +357 22 408 669
Czech Republic: +420 224 919 293
Denmark: +45 82 12 12 1 2
Estonia: +372 16662
Finland: +358 0800 147 111, +358 9 471 977
France: +33 (0)1 45 42 59 59, +33 (0)1 45 42 59 59
Greece: +30 2107793777
Hungary: +36 (80) 201-199
Iceland: +354 543 2222, +354 543 1000
Ireland: +353 1 809 2166 (8-22h, 7/7)
Italy: +3902-66101029, +3906 68593726
Latvia: +371 67042473
Liechtenstein: +423 236 64 00
Lithuania: +370 8 5 236 20 52
Luxembourg: +352 8002-5500
Netherlands: +31 30 274 88 88
Norway: +47 22 59 13 00
Poland: +48 22 619 66 54
Portugal: +351 808 250 143
Romania: +40 21318 3606
Slovakia: +421 2 54 77 4 166
Slovenia: +386 41 650 500
Spain: +34 915620420, +34 917689800
Sweden: 08-331231 (Måndag-Fredag; 9.00-17.00, 112 24h)
UK: 0844 892 0111 (UK only, Monday to Friday, 08.00-18.00)

2. Potential hazards

2.1 Classification of substance or mixture according to Regulation (EC) No. 1272/2008:

Skin irrit.	Cat. 2	H315
Skin sens	Cat. 1	H317
Eye irrit.	Cat. 2	H318
Aquatic chronic	Cat. 2	H411

2.2. Identifying elements according to Regulation (EC) No. 1272/2008:

Symbols and signal word of product



Signal word: hazard

Hazard warnings:

H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H411	Toxic to aquatic life with long lasting effects

Safety Tips:

P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash contaminated skin thoroughly after handling.
P270	Do not eat, drink or smoke when using.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P301+P312	BEI VERSCHLUCKEN: Bei Unwohlsein GIFTINFORMATIONSZENTRUM / Arzt anrufen
P302+P352	IF ON SKIN: Wash with plenty of water.
P310	Call a POISON CENTER / doctor immediately
P321	Specific treatment (see medical advice on this label)
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove any existing contact lenses if possible. Continue rinsing.
P330	Rinse out mouth
P332+P313	If skin irritation occurs: Get medical advice / assistance.
P362+P364	Take off contaminated clothing and wash it before reuse
P391	Collect spillage.
P501	Dispose of contents / container in accordance with local regulations.

2.3 Other hazards:

Substances with classification Rep. 2 (H361), which are used in low concentrations of 1.5-2% w / w and are converted during the polymerization of the uncured products, the toxicological and reprotoxicological risk for the end product is to be assessed as low. According to the REACH regulation, last amended on 01.01.2020) with the reference to point 3.7.3. In Annex I of Regulation (EC) No. 1272/2008, these properties of reprotoxicity category 2 must be from a concentration greater or equal 3% must be stated on the label and in section 2.2 of the safety data sheet!

3. Composition / information on ingredients

3.1 Substances

This product is a mixture

3.2 Mixtures

Composition / information on ingredients

Reagent	Percentage	EC No.: CAS No. REACH Registration No.	Classification according to Regulation (EC) No. 1272/2008	Hazard class and category
Aliphatic difunctional methacrylate	< 40	Company secret	H317 H411	Skin Sens 1B Aquatic 2 Chronic
Aliphatic urethane Acrylate	< 10	Company secret	-	-
2-Propenoic acid, reaction products with pentaerythritol	< 5	Company secret	H302 H315 H318 H317 H411	Acute Tox. 4 Skin Irrit. 2 Eye Dam. 1 Skin Sens 1 Aquatic 2 Chronic
Cristobalitmehl	< 20	Company secret	No classification for materials processed in resins, as they are no longer powdery but liquid.	
2,2'-ethylenedioxydiethyl dimethacrylate	< 10	Company secret	H317	Skin Sens 1
Siliziumdioxid	< 6	Company secret	Not a hazardous substance or mixture according to Regulation (EC) No. 1772/2008	
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	< 2	Company secret	H317 H361 H411	Skin Sens 1B Rep 2 Aquatic 2 Chronic.

4. First aid measures

4.1 Description of first aid measures

General information: Immediately remove stained and soaked clothing. In all cases of doubt of if symptoms are present, seek medical advice.

If consciousness is lost, place in the recovery position and seek medical advice.

After inhalation: Ensure that there is fresh air. If the product irritates the respiratory tract: Consult a doctor.

After contact with skin: Wash out and rinse with plenty of soap and water.

After contact with eyes: In the event of contact with the eyes, remove contact lenses and immediately rinse with running water for 10-15 minutes while keeping the eyes open, and see an eye specialist.

After swallowing: Never administer something orally to an unconscious person or someone who is experiencing cramps. Consult a doctor immediately. Prevent vomiting.

4.2 The most significant acute and delayed occurring symptoms and impact

Skin contact: May cause an allergic skin reaction.

Eye Contact: Can cause serious eye damage

4.3 Information about emergency medical aid or special treatment

Note for the physician: Treat symptomatically

5. Fire-fighting procedures

5.1. Solvents

Suitable solvents: Water spray, foam, dry fire extinguisher or carbon dioxide.

Unsuitable solvents: Do not use a water jet as an extinguishing agent, as this will cause the fire to spread.

5.2. Particular hazards arising from substance or mixture

Hazardous decomposition products: Thermal decomposition or combustion products may contain the following substances: Carbon oxides.

5.3. Information for fire-fighting:

Safety precautions during fire-fighting: No actions should be taken without appropriate training or which are associated with personal risk.

Particular protective equipment for fire-fighters: Wear self-contained breathing apparatuses (SCBA) and suitable protective clothing.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: At work, wear suitable protective clothing, including gloves, safety goggles / face guard, respiratory protection, boots, or other clothing or an apron as appropriate.

Suitable respiratory protection in the event of inadequate ventilation.

6.2. Environmental protection measures

Environmental protection measures to prevent discharge into the environment.

6.3. Methods and material for retention and cleaning

Methods for cleaning: No smoking, sparks, flames or other ignition sources near spillages. Bind leaked material with sand or another inert absorbent. Collect it and fill a suitable disposal bin, then seal securely. Containers with collected spilled material must have the correct hazard labeling. Spillages must be collected and disposed of in accordance with the information in Section 13.

6.4. Reference to other sections

Reference to other sections: For information on personal protective equipment, see Section 8. Section 13 contains information about waste disposal.

7. Handling and storage

7.1. Safety precautions for safe handling

Safety precautions during use: Avoid contact with the eyes and skin. Wash contaminated skin thoroughly after handling. The hands and all contaminated parts of the body must be washed with soap and water before leaving the factory premises. Keep away from heat, sparks and open flame. Mechanical suction is required if dust is discharged during handling. Open and handle containers with care. At work, wear suitable safety equipment in the event of longer exposure and / or high concentrations of vapors, spray or mist.

General work hygiene measures

When using the product, do not eat, drink or smoke.

7.2. Conditions for safe storage, taking cases of incompatibility into account

Safety precautions for storage

Store in a cool and dry place in a tightly sealed original container.

Store at temperatures between 5°C and 30°C. Keep away from frost and direct sunlight. Keep away from hot surfaces, sparks, open flames and other types of ignition sources. Do not smoke.

7.3. Specific end uses

Intended end use(s)

The intended uses of this product are described in Section 1.2.

8. Limitation and monitoring of exposure/personal protective equipment

8.1 Parameters to be monitored:

No maximum allowable concentration(s) is/are known for the ingredient(s).

8.2 Limitation and monitoring of exposure

Protective equipment



Suitable technical controller:

Adequate room ventilation and local aspiration must be ensured. The maximum allowable concentration of the product or ingredients must be observed.

Eye/face protection:

Eye protection corresponding to a recognized standard should be worn if a risk assessment shows that eye contact is possible. The following personal protective clothing should be worn: Chemical safety goggles. Wear close-fitting chemical safety goggles or face protection.

Hand protection:

Wear protective gloves. In accordance with the data specified by the protective glove manufacturers, it is required while using them to check whether the gloves maintain their repellent properties and to change them as soon as damage is detected. In the case of exposure up to 8 hours, protective gloves made of the following material must be worn: Nitrile rubber.

Other skin and personal protection:

Avoid contact with the skin. Wear suitable clothing to prevent possible skin contact.

Hygiene measures:

Wash contaminated skin thoroughly after handling. Before removing the clothing, wash contaminated clothing and skin immediately with plenty of water. Immediately remove all contaminated garments and wash before wearing them again. Contaminated work clothing should not be allowed out of the workplace. When using the product, do not eat, drink or smoke.

Respiratory protection:

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a protective mask with full face protection and the following filter cartridge: Filter against organic vapors. Highly effective particle filters.

9. Physical and chemical properties

9.1 Information about the fundamental physical and chemical properties

	Value	Unit
Appearance	Liquid	
Odor	Ester	
Color	Various tooth colors	
Melting point	Not determined	
Initial boiling point and boiling range	Not determined	
Flash point	> 150	°C
Inflammability (solid, gaseous)	Not determined	
Upper/lower inflammability or explosion limits	Not determined	
Vapor pressure	Not determined	
Relative density	1.1	g/cm ³
Solubility	Insoluble in water	
Soluble in most organic solvents		
Viscosity	Approx. 700-1200	Pa s
pH	Not determined	

9.2 Other information

10. Stability and reactivity

10.1 Reactivity

Reactivity: No information is available

10.2 Chemical stability

Stability: Stable at normal room temperatures

10.3 Possible hazardous reactions

Possible hazardous reactions May polymerize

10.4 Conditions to be avoided

Incompatible conditions: Reaction with light, risk of polymerization. Keep away from heat, flames and other ignition sources. Do not expose to high temperatures or direct sunlight. Avoid contact with strong oxidizers

10.5 Incompatible materials

Incompatible materials Keep away from radical-forming initiators, peroxides, strongly alkaline substances and reactive metals to prevent exothermic polymerization reactions.

10.6 Hazardous decomposition products

Hazardous decomposition products: Carbon oxides

11. Toxicological information

11.1 Information about toxicological effects

Aliphatic difunctional methacrylate (at 100%)	
Acute toxicity – oral LD ₅₀	>5000 mg/kg, oral, rat
Acute toxicity – dermal LD ₅₀	>2000 mg/kg, dermal, rat
Acute toxicity – inhalative LC ₅₀	No information available
Caustic/irritant effect on the skin	Does not cause irritation
Severe eye damage/irritation	Does not cause irritation
Respiratory tract sensitization	No information available
Skin sensitization	Sensitizing
Germ cell mutagenicity	Bacterial reverse mutation test: Negative.
Carcinogenicity	No information available
Reproductive toxicity	Fertility - NOAEL, 1000 mg/kg KG/day, oral, rat P
Specific target organ toxicity (repeated exposure)	STOT - repeated exposure NOAEL 100 mg/kg KG/day, oral, rat
Aliphatic urethane Acrylate (at 100%)	
Acute toxicity – oral LD ₅₀	540 mg/kg, oral, rat
Estimated acute oral toxicity	1250,0 mg/kg
Acute toxicity – dermal LD ₅₀	>2000 mg/kg, dermal, rabbit
Acute toxicity – inhalative LC ₅₀	No information is available.
Caustic/irritant effect on the skin	May cause skin irritation.
Severe eye damage/irritation	May cause severe eye irritation.
Respiratory tract sensitization	No information available
Skin sensitization	Non-sensitizing

Germ cell mutagenicity / genotoxicity - in vitro	Gene mutation: Negative.
Carcinogenicity	NOAEL 1.5 mg/kg, dermal, mouse
Reproductive toxicity - fertility	Fertility: - NOAEL 200 mg/kg/d, oral, rat P
Reproductive toxicity - Development	Embryotoxicity: - NOAEL: 75 mg/kg KG/day, oral, rabbit
Specific target organ toxicity (repeated exposure)	NOAEL 25 mg/kg KG/day, oral, rat
2-Propenoic acid, reaction products with pentaerythritol (at 100%)	
Acute toxicity – oral LD ₅₀	540 mg/kg, oral, rat
Estimated acute oral toxicity	500,0 mg/kg
Acute toxicity – dermal LD ₅₀	>2000 mg/kg, dermal, rabbit
Acute toxicity – inhalative LC ₅₀	No information is available.
Caustic/irritant effect on the skin	May cause skin irritation
Severe eye damage/irritation	May cause eye irritation
Respiratory tract sensitization	No information available
Skin sensitization	Not sensitizing
Germ cell mutagenicity / genotoxicity - in vitro	Gene mutation: Negative.
Carcinogenicity	NOAEL 1,5 mg/kg, dermal, mouse
Reproductive toxicity - fertility	NOAEL 200 mg/kg/d oral, rat
Reproductive toxicity - Development	NOAEL: 75 mg/kg KG/Tag, Oral, rabbit
Specific target organ toxicity (repeated exposure)	NOAEL 25 mg/kg KG/Tag, Oral, rat
2,2'-ethylenedioxydiethyl dimethacrylate (at 100%)	
Acute toxicity – oral LD ₅₀	Keine Informationen verfügbar
Acute toxicity – dermal LD ₅₀	>2000 mg/kg, dermal, Maus
Acute toxicity – inhalative LC ₅₀	Keine Informationen verfügbar
Caustic/irritant effect on the skin	Not irritating
Severe eye damage/irritation	Not irritating
Respiratory tract sensitization	No information is available.
Skin sensitization	sensitizing
Germ cell mutagenicity / genotoxicity - in vitro	negativ
Carcinogenicity	No evidence of carcinogenicity in animal experiments
Reproductive toxicity - fertility	NOAEL 1000 mg/kg KG/Tag, oral, rat P
Reproductive toxicity - Development	NOAEL 1000 mg/kg KG/Tag, oral, rat
Specific target organ toxicity (repeated exposure)	NOAEL 1000 mg/kg KG/Tag, oral, rat NOAEL 1000 mg/kg KG/Tag, dermal, mouse
Siliziumdioxid (at 100%)	
Acute toxicity – oral LD ₅₀	>5000 mg/Kg
Acute toxicity – dermal LD ₅₀	0,139 mg/l/4h (comparable product)
Acute toxicity – inhalative LC ₅₀	>5000 mg/Kg comparable product)
Caustic/irritant effect on the skin	Not irritating
Severe eye damage/irritation	Not irritating
Respiratory tract sensitization	No information available
Skin sensitization	Not known
Germ cell mutagenicity / genotoxicity - in vitro	negative
Carcinogenicity	No evidence of a carcinogenic effect
Reproductive toxicity - fertility	No evidence of reprotoxic properties.
Reproductive toxicity - Development	NOAEL 1000 mg/kg KG/Tag, oral, rat
Specific target organ toxicity (repeated exposure)	Silicosis or other product-specific properties of the respiratory tract were not observed when handling the product
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (at 100 %)	
Acute toxicity – oral LD ₅₀	>5000 mg/Kg rat
Acute toxicity – inhalative LC ₅₀	-
Acute toxicity – dermal LD ₅₀	>2000 mg/Kg rat

Caustic/irritant effect on the skin	0.5 g / 24h dermal, rabbit, not irritating
Severe eye damage/irritation	0.056 g / 5d eye, rabbit, not irritating
Respiratory tract sensitization	OECD Test 429 local lymph node test, dermal, mouse sensitizing
Skin sensitization	
Germ cell mutagenicity / genotoxicity - in vitro	OECD test 471 reverse mutation test using bacteria, in-vitro, negative OECD Test 473 Test for chromosome aberrations in mammalian cells - in vitro negative
Carcinogenicity	Based on the available data, the criteria for classification are not met
The table below shows ingredients that are above the limit value considered relevant and are listed as toxic to reproduction:	
Reproductive toxicity	OECD Test No. 414: Study to examine the prenatal developmental toxicity, rat Developmental toxicity: NOAL 150 mg / kg body weight / day OECD Test No. 421: Screening Test for Reproductive / Developmental Toxicity, Rat Reproductive toxicity: NOAL 60 mg / kg body weight / day OECD Test No. 421: Screening Test for Reproductive / Developmental Toxicity, Rat Developmental toxicity: NOAL 200 mg / kg body weight / day OECD Test No. 421: Screening Test for Reproductive / Developmental Toxicity, Rat Parental: NOAL 200 mg / kg body weight / day
European Union	Repr. 2
Specific target organ toxicity (single exposure)	Based on the available data, the criteria for classification are not met.
Specific target organ toxicity (repeated exposure)	OECD Test 408: 90 day tox study with repeated oral administration to rodents - oral, rat NOAL 100mg / kg body weight / day

The following applies to Christobalith flour:

No classification for material processed in resins, as it is no longer powdery but liquid.

12 Environment-related information

12.1 Toxicity

Aliphatic difunctional methacrylate (at 100%)	
Acute toxicity - fish	LC50, 96 hours: 10.1 mg/l, Brachydanio rerio (zebrafish)
Acute toxicity - invertebrate aquatic animals	EC50, 48 hours: >1.2 mg/l, Daphnia magna
Acute toxicity - aquatic plants	NOEC, 72 hours: 0.21 mg/l, Desmodium subspicatus
Acute toxicity - microorganisms	NOEC, 14 days: >=36.1 mg/l, activated sludge

2-Propenoic acid, reaction products with pentaerythritol (at 100%)	
Acute toxicity - fish	LC ₅₀ , 96 hours: 3.2mg/L mg/l, fish
Acute toxicity - invertebrate aquatic animals	EC ₅₀ , 48 hours: 13mg/L mg/l, Daphnia magna
Acute toxicity - aquatic plants	NOEC, 96 Stunden: 0.31 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC ₅₀ , 3 Stunden: 100 mg/l, activated sludge
2.2' ethylenedioxydiethyl dimethacrylate (at 100%)	
Acute toxicity - fish	LC ₅₀ , 96 hours: 16.4 mg/l, Brachydanio rerio (zebrafish)
Acute toxicity - invertebrate aquatic animals	EC ₅₀ , 21 days: 51.9 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₈₀ , 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata
Siliziumdioxid (at 100%)	
Acute toxicity - fish	LC ₅₀ , 96 hours: 10000 mg/l, Brachydanio rerio (Zebrafish)
Acute toxicity - invertebrate aquatic animals	EC ₅₀ , 24 hours: 1000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	No information available
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (at 100%)	
Acute toxicity - fish	LC ₅₀ , 48 hours: 6.53 mg/l, Oryzias latipes
Acute toxicity - invertebrate aquatic animals	EC ₅₀ , 48 hours: 3,53 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: > 2,01 mg/l, Pseudokirchneriella subcapitata EC ₁₀ , 72 hours: > 1,56 mg/l, Pseudokirchneriella subcapitata

12.2. Persistence and degradability

The product is not easily biodegradable.

12.3. Bioaccumulation potential

Aliphatic difunctional methacrylate (at 100%)	
Distribution coefficient	log Kow: 3.39
2-Propenoic acid, reaction products with pentaerythritol (at 100%)	
Bioaccumulation potential	No bioaccumulation data are available.
Distribution coefficient	log Kow: 1.69
2.2' ethylenedioxydiethyl dimethacrylate (at 100%)	
Distribution coefficient	log Kow: 2.3
Siliziumdioxid (at 100%)	
Bioaccumulation	Not to be expected
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (at 100%)	
Distribution coefficient	Log Pow: 3,1
Bioconcentration Factor (BFC)	18-72

12.4 Mobility on the ground

Aliphatic difunctional methacrylate (at 100%)	
Adsorption / desorption coefficient	Calculation - Koc: 4516 @ 20°C
2-Propenoic acid, reaction products with pentaerythritol (at 100%)	
Adsorption / desorption coefficient	Not determined

2.2' ethylenedioxydiethyl dimethacrylate (at 100%)	
Adsorption / desorption coefficient	No information available
Siliziumdioxid (at 100%)	
mobility	Significant mobility in the soil is not to be expected.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (at 100%)	
Henry constant	0 Pa m ³ /mol @ 25°C
Absorption coefficient	Log Koc = 784.8

12.5 Results of PBT and vPvB assessment

Aliphatic difunctional methacrylate (at 100%)	
According to the criteria of the REACH regulation, no PBT or vPvB substance.	
2-Propenoic acid, reaction products with pentaerythritol (at 100%)	
According to the criteria of the REACH regulation, no PBT or vPvB substance.	
2.2' ethylenedioxydiethyl dimethacrylate (at 100%)	
According to the criteria of the REACH regulation, no PBT or vPvB substance.	
Siliziumdioxid (at 100%)	
According to the criteria of the REACH regulation, no PBT or vPvB substance.	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (at 100%)	
According to the criteria of the REACH regulation, no PBT or vPvB substance.	

13. Disposal instructions

13.1 Procedure for waste disposal

Proper disposal/product

Disposal in accordance with regulatory requirements.

Proper disposal/packaging

May be disposed of in accordance with local regulatory requirements.

Ecology - waste materials

Avoid discharge into the environment

14. Transport information

14.1 UN No.

none

14.2 Proper UN shipping name

none

14.3 Transport hazard classes

No dangerous goods pursuant to transportation regulations.

14.4 Packaging group

none

14.5 Environmental hazards

none

14.6 Special precautions for transport

none

14.7 Bulk transport in accordance with Annex II of the MARPOL Convention 73/79 pursuant to IBC Code

No

15. Legal regulations

15.1. Regulations on safety, health and environmental protection/specific laws for the substance or mixture

EU regulations

Information about Regulation (EC) No. 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register:

irrelevant

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer:

irrelevant

Regulation (EC) No. 648/2004 on detergents:

irrelevant

Regulation (EC) No. 850/2004 [POP regulation]:

irrelevant

Regulation (EU) No. 649/2012 concerning the import and export of hazardous chemicals:

irrelevant

Restriction on use in accordance with REACH Annex XVII No.:

irrelevant

National regulations

National regulations must also be observed.

Instructions on employment restriction:

No information is available.

Major Accidents Ordinance

Not subject to the German Major Accidents Ordinance.

Solvent Ordinance (31st Federal Immission Protection Ordinance [BlmSchV]):

irrelevant

Storage class

10-13 Other flammable and non-flammable substances.

Water hazard class (WHC)

1 slightly hazardous to water (WHC 1)

Technical Instructions on Air Quality Control (TA-Luft)

Not subject to the Technical Instructions on Air Quality Control.

Other regulations, restrictions and prohibition ordinances

None

15.2. Chemical safety assessment

A chemical safety assessment was carried out for this preparation.

Chemical safety assessments were not carried out for substances in this mixture.

16. Other information**Text of H and P phrases (number and full text)**

H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H411	Toxic to aquatic life with long lasting effects
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash contaminated skin thoroughly after handling.
P270	Do not eat, drink or smoke when using.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P301+P312	BEI VERSCHLUCKEN: Bei Unwohlsein GIFTINFORMATIONSZENTRUM / Arzt anrufen
P302+P352	IF ON SKIN: Wash with plenty of water.
P310	Call a POISON CENTER / doctor immediately
P321	Specific treatment (see medical advice on this label)
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove any existing contact lenses if possible. Continue rinsing.
P330	Rinse out mouth
P332+P313	If skin irritation occurs: Get medical advice / assistance.
P362+P364	Take off contaminated clothing and wash it before reuse
P391	Collect spillage.
P501	Dispose of contents / container in accordance with local regulations.

Training tips

None

Recommended restriction(s) on use:

No special measures are required.

Data sources:

REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No. 1907/2006.

Further information:

REJECTION OF LIABILITY We have obtained the information in this data sheet from sources that we consider reliable. The accuracy of expressed or implied information cannot be guaranteed. The conditions or methods for handling, storage, use or disposal of the product are beyond our control and possibly also our knowledge. For these and other reasons, we accept no responsibility and expressly reject liability for any losses, damage or costs that may arise from handling, storage, use or disposal of the product or that may be associated therewith in any way. This Safety Data Sheet was created for this product and may only be used for this product. If the product is used as a component of another product, the information indicated in the data sheet may not apply.

This information is based on our current knowledge and should only describe the product with regard to health, safety and environmental conditions. It must therefore not be construed as a guarantee for any specific property of the product.