

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Assure Universal Bonding Resin

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : For Rx Only

##### 1.2.2. Uses advised against

No additional information available

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

##### Manufacturer/Importer/Representative/User/Distributor:

Reliance Orthodontic Products, Inc.  
1540 W. Thorndale Ave  
Itasca, IL 60143 USA  
T 630-773-4009, during normal business hours  
[regulatory@relianceorthodontics.com](mailto:regulatory@relianceorthodontics.com)  
[www.RelianceOrthodontics.com](http://www.RelianceOrthodontics.com)

##### Australian Sponsor:

Emergo Australia, 201 Sussex St.  
Darling Park, Tower II, Level 20  
Sydney, NSW 2000 Australia  
T +61 2 9006 1662

##### Switzerland Representative:

MedEnvoy Global BV  
Leidschendam-Voorburg, Zug Branch Office  
Gotthardstrasse 28, 6302 Zug, Switzerland  
T +41 41 462 01 42

##### U.S. Federal Register:

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012  
/ Rules and Regulations  
FDA Registration: 1420089

##### EC Representative:

Emergo Europe  
Westervoortsedijk 60  
6827 AT Arnhem  
The Netherlands  
T +31 70 345 8570

##### U.K. Person Responsible:

Emergo Consulting (UK) Limited  
c/o Cr360 - UL International Compass House, Vision Park Histon  
Cambridge CB24 9BZ  
England, United Kingdom  
T +44(0) 1223 772 671

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC - 24-Hour Hazmat Emergency Communications Center  
Domestic: 1-800-424-9300 Outside the U.S.: 1-703-527-3887, collect calls accepted

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2	H225
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Specific target organ toxicity - Single exposure, Category 3, Narcosis	H336

Full text of H- and EUH-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

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### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS07

Signal word (CLP)

: Danger

Contains

: 2-Hydroxyethyl Methacrylate; BisGMA; Acetone

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P233 - Keep container tightly closed.

P241 - Use explosion-proof electrical, ventilating equipment.

P261 - Avoid breathing fume, mist, vapours.

P264 - Wash hands thoroughly after handling.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P280 - Wear protective gloves, protective clothing, eye protection.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P312 - Call a POISON CENTER, doctor if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use dry extinguishing powder, carbon dioxide (CO<sub>2</sub>), alcohol resistant foam to extinguish.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P403+P235 - Store in a well-ventilated place. Keep cool.

P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation, a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

Component	
2-Hydroxyethyl Methacrylate (868-77-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Acetone (67-64-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Triethylamine (121-44-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acetone substance with a Community workplace exposure limit	CAS-No.: 67-64-1 EC-No.: 200-662-2 EC Index-No.: 606-001-00-8	50 - 75	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
2-Hydroxyethyl Methacrylate	CAS-No.: 868-77-9 EC-No.: 212-782-2 EC Index-No.: 607-124-00-X	10 - 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
BisGMA	CAS-No.: 1565-94-2 EC-No.: 216-367-7	10 - 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335
4-Dimethylaminobenzoic Acid	CAS-No.: 619-84-1 EC-No.: 210-615-8	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Triethylamine substance with a Community workplace exposure limit	CAS-No.: 121-44-8 EC Index-No.: 612-004-00-5	< 1	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Triethylamine	CAS-No.: 121-44-8 EC Index-No.: 612-004-00-5	(1 ≤ C < 100) STOT SE 3, H335

Full text of H- and EUH-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Wash skin with plenty of water. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: May cause eye irritation.

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

Treat symptomatically.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Foam. Carbon dioxide.

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

Fire hazard : Highly flammable liquid and vapour.  
Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Avoid breathing fume, mist, vapours, spray.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing fume, mist, vapours, spray.  
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Technical measures : Use only non-sparking tools.  
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.

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

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### 8.2.2. Personal protection equipment

###### Personal protective equipment symbol(s):



##### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses

##### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

###### Hand protection:

Protective gloves

##### 8.2.2.3. Respiratory protection

###### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

##### 8.2.2.4. Thermal hazards

No additional information available

##### 8.2.3. Environmental exposure controls

###### Environmental exposure controls:

Avoid release to the environment.

### SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Pale Yellow.
Appearance	: Clear liquid.
Odour	: Slight Acetone.

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Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: ≈ 56 °C
Flammability	: Flammable
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: -20 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 4.3 - 4.5
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Explosion limits : 2.6 - 2.8 vol %

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapour.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
LD50 oral rat	5564 mg/kg bodyweight (Rat, Experimental value, Oral)
LD50 dermal rabbit	> 5000 mg/kg (24 h, Rabbit, Male, Experimental value, Dermal)
<b>4-Dimethylaminobenzoic Acid (619-84-1)</b>	
LD50 oral rat	> 5000 mg/kg (Rat, Oral)
<b>Acetone (67-64-1)</b>	
LD50 oral rat	5800 mg/kg (Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 15800 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	132 mg/l (3 h, Rat, Male, Experimental value, Inhalation (vapours))
LC50 Inhalation - Rat [ppm]	> 16000 ppm/4h
LC50 Inhalation - Rat (Vapours)	76 mg/l Source: ECHA
<b>Triethylamine (121-44-8)</b>	
LD50 oral rat	730 mg/kg Source: ECHA
LD50 dermal rabbit	580 mg/kg Source: ECHA
LC50 Inhalation - Rat	7 mg/l (EPA OTS 798.1150: Acute inhalation toxicity, 4 h, Rat, Male / female, Experimental value, Converted value, Inhalation (vapours), 14 day(s))
LC50 Inhalation - Rat [ppm]	3496 ppm Source: ECHA
Skin corrosion/irritation	: Causes skin irritation. pH: 4.3 - 4.5
<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
pH	No data available in the literature
<b>Acetone (67-64-1)</b>	
pH	5 - 6 (20 °C)
<b>Triethylamine (121-44-8)</b>	
pH	12.5 Source: ECHA
Serious eye damage/irritation	: Causes serious eye irritation. pH: 4.3 - 4.5
<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
pH	No data available in the literature
<b>Acetone (67-64-1)</b>	
pH	5 - 6 (20 °C)
<b>Triethylamine (121-44-8)</b>	
pH	12.5 Source: ECHA
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
<b>Acetone (67-64-1)</b>	
IARC group	4 - Probably not carcinogenic to humans
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness.

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4-Dimethylaminobenzoic Acid (619-84-1)	
STOT-single exposure	May cause respiratory irritation.
BisGMA (1565-94-2)	
STOT-single exposure	May cause respiratory irritation.
Acetone (67-64-1)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Triethylamine (121-44-8)	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	1.02 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Guideline: OECD Guideline 452 (Chronic Toxicity Studies)
Aspiration hazard	: Not classified
2-Hydroxyethyl Methacrylate (868-77-9)	
Viscosity, kinematic	6.4 mm <sup>2</sup> /s (20 °C)
4-Dimethylaminobenzoic Acid (619-84-1)	
Viscosity, kinematic	Not applicable
Acetone (67-64-1)	
Viscosity, kinematic	No data available in the literature
Triethylamine (121-44-8)	
Viscosity, kinematic	No data available in the literature

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

2-Hydroxyethyl Methacrylate (868-77-9)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	380 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	836 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
4-Dimethylaminobenzoic Acid (619-84-1)	
LC50 - Fish [1]	1098.988 mg/l Source: Ecological Structure Activity Relationships
EC50 96h - Algae [1]	740.871 mg/l Source: Quantitative Structure Activity Relation



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<b>BisGMA (1565-94-2)</b>	
LC50 - Fish [1]	0.537 mg/l Source: ECOSAR
<b>Acetone (67-64-1)</b>	
LC50 - Fish [1]	6210 - 8120 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Measured concentration)
LC50 - Fish [2]	8300 mg/l
LOEC (chronic)	> 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
<b>Triethylamine (121-44-8)</b>	
LC50 - Fish [1]	24 mg/l Source: ECHA
EC50 72h - Algae [1]	8 mg/l Source: ECHA
EC50 72h - Algae [2]	6.8 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	14 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	7.1 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
<b>12.2. Persistence and degradability</b>	
<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
Persistence and degradability	Biodegradability in soil: no data available. Readily biodegradable in water.
<b>4-Dimethylaminobenzoic Acid (619-84-1)</b>	
Persistence and degradability	Biodegradability in water: no data available.
<b>BisGMA (1565-94-2)</b>	
Persistence and degradability	Biodegradability in water: no data available.
<b>Acetone (67-64-1)</b>	
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.43 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.92 g O <sub>2</sub> /g substance
ThOD	2.2 g O <sub>2</sub> /g substance
<b>Triethylamine (121-44-8)</b>	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	< 0.001 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.02 g O <sub>2</sub> /g substance
<b>12.3. Bioaccumulative potential</b>	
<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
Partition coefficient n-octanol/water (Log Pow)	0.42 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Not bioaccumulative.
<b>4-Dimethylaminobenzoic Acid (619-84-1)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.28 Source: National Library of Medicine

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### 4-Dimethylaminobenzoic Acid (619-84-1)

Bioaccumulative potential	No bioaccumulation data available.
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### BisGMA (1565-94-2)

Partition coefficient n-octanol/water (Log Pow)	4.94 (Estimated value)
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Bioaccumulative potential	No bioaccumulation data available.
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### Acetone (67-64-1)

BCF - Fish [1]	0.69 (Pisces, Literature study)
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Partition coefficient n-octanol/water (Log Pow)	-0.23 (Test data)
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Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
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### Triethylamine (121-44-8)

BCF - Fish [1]	< 0.5 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Fresh water, Experimental value)
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Partition coefficient n-octanol/water (Log Pow)	1.45 (Experimental value)
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Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
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## 12.4. Mobility in soil

### 2-Hydroxyethyl Methacrylate (868-77-9)

Surface tension	No data available in the literature
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Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.164 - 0.708 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
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Ecology - soil	Adsorbs into the soil.
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### Acetone (67-64-1)

Surface tension	23.3 mN/m (20 °C)
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Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.374 - 0.988 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
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Ecology - soil	Highly mobile in soil.
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### Triethylamine (121-44-8)

Surface tension	20.05 mN/m (25 °C)
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Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.03 (log Koc, SRC PCKOCWIN v1.66, Calculated value)
--	--

Ecology - soil	Low potential for adsorption in soil.
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## 12.5. Results of PBT and vPvB assessment

### Component

2-Hydroxyethyl Methacrylate (868-77-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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Acetone (67-64-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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Triethylamine (121-44-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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## 12.6. Endocrine disrupting properties

No additional information available

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### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Additional information : Flammable vapours may accumulate in the container.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

### 14.1. UN number or ID number

UN-No. (ADR) : UN 1090  
UN-No. (IMDG) : UN 1090  
UN-No. (IATA) : UN 1090  
UN-No. (ADN) : UN 1090  
UN-No. (RID) : UN 1090

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : ACETONE  
Proper Shipping Name (IMDG) : ACETONE  
Proper Shipping Name (IATA) : Acetone  
Proper Shipping Name (ADN) : ACETONE  
Proper Shipping Name (RID) : ACETONE  
Transport document description (ADR) : UN 1090 ACETONE, 3, II, (D/E)  
Transport document description (IMDG) : UN 1090 ACETONE, 3, II (-20°C c.c.)  
Transport document description (IATA) : UN 1090 Acetone, 3, II  
Transport document description (ADN) : UN 1090 ACETONE, 3, II  
Transport document description (RID) : UN 1090 ACETONE, 3, II

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 3  
Danger labels (ADR) : 3



#### IMDG

Transport hazard class(es) (IMDG) : 3  
Danger labels (IMDG) : 3



#### IATA

Transport hazard class(es) (IATA) : 3  
Danger labels (IATA) : 3



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### ADN

Transport hazard class(es) (ADN) : 3  
Danger labels (ADN) : 3  
:



### RID

Transport hazard class(es) (RID) : 3  
Danger labels (RID) : 3  
:



### 14.4. Packing group

Packing group (ADR) : II  
Packing group (IMDG) : II  
Packing group (IATA) : II  
Packing group (ADN) : II  
Packing group (RID) : II

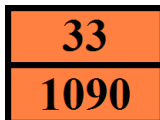
### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR) : F1  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2  
Packing instructions (ADR) : P001, IBC02, R001  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1  
Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 2  
Special provisions for carriage - Operation (ADR) : S2, S20  
Hazard identification number (Kemler No.) : 33  
Orange plates :



Tunnel restriction code (ADR) : D/E

#### Transport by sea

Limited quantities (IMDG) : 1 L  
Excepted quantities (IMDG) : E2  
Packing instructions (IMDG) : P001  
IBC packing instructions (IMDG) : IBC02  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP1  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-D  
Stowage category (IMDG) : E

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Flash point (IMDG) : -20°C to -18°C c.c.  
Properties and observations (IMDG) : Colourless, clear liquid, with a characteristic mint-like odour. Flashpoint: -20°C to -18°C c.c. Explosive limits: 2.5% to 13% Miscible with water.

### Air transport

PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y341  
PCA limited quantity max net quantity (IATA) : 1L  
PCA packing instructions (IATA) : 353  
PCA max net quantity (IATA) : 5L  
CAO packing instructions (IATA) : 364  
CAO max net quantity (IATA) : 60L  
ERG code (IATA) : 3H

### Inland waterway transport

Classification code (ADN) : F1  
Limited quantities (ADN) : 1 L  
Excepted quantities (ADN) : E2  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 1

### Rail transport

Classification code (RID) : F1  
Limited quantities (RID) : 1L  
Excepted quantities (RID) : E2  
Packing instructions (RID) : P001, IBC02, R001  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T4  
Portable tank and bulk container special provisions (RID) : TP1  
Tank codes for RID tanks (RID) : LGBF  
Transport category (RID) : 2  
Colis express (express parcels) (RID) : CE7  
Hazard identification number (RID) : 33

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

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### Explosives Precursors Regulation (2019/1148)

Contains substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

#### ANNEX II REPORTABLE EXPLOSIVES PRECURSORS

List of substances on their own or in mixtures or in substances for which suspicious transactions and significant disappearances and thefts are to be reported to the relevant national contact point within 24 hours.

Name	CAS-No.	Combined Nomenclature code (CN)	Combined Nomenclature code for mixture without constituents which would determine classification under another CN code
Acetone	67-64-1	2914 11 00	ex 3824 99 92

Please see [https://home-affairs.ec.europa.eu/policies/internal-security/counter-terrorism-and-radicalisation/protection/legislation-chemicals-used-home-made-explosives\\_en](https://home-affairs.ec.europa.eu/policies/internal-security/counter-terrorism-and-radicalisation/protection/legislation-chemicals-used-home-made-explosives_en)

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Revision date	Modified	
	Supersedes version of	Added	
1.3	Display additional SDS EU addresses	Added	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Precautionary statements (CLP)	Modified	
3.2	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

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### Full text of H- and EUH-statements:

H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.