

# Assure Plus

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Date of issue: 3/30/2016 Version: 3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Assure Plus

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

Use of the substance/mixture : For professional use only.

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

##### Manufacturer:

Reliance Orthodontic Products Inc. 1540 West Thorndale Ave. Itasca, IL 60143 USA  
630-773-4009, during normal business hours

##### EC Representative:

Emergo Europe, Molenstraat 15, 2513 BH, The Hague, The Netherlands

**Australian Sponsor:** Emergo Australia, 201 Sussex St. Darling Park, Tower II, Level 20, Sydney, NSW 2000 Australia

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazards identification

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

##### Classification (GHS-US)

Flammable liquids Category 2 H225  
Serious eye damage/eye irritation/Category 2A H319  
Skin Corrosion / irritation Category 2 H315  
Skin Sensitization Category 1 H317

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS02



GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor  
H315 – Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation

Precautionary statements (GHS-US) : P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
P403+P235 - Store in a well-ventilated place. Keep cool  
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P233 - Keep container tightly closed  
P501 - Dispose in a safe manner in accordance with local/national regulations.  
P264 – Wash hands thoroughly after handling  
P337+P313 – If eye irritation persists: Get medical advice/attention

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

Not applicable

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
bisphenol A glycidylmethacrylate	(CAS No) 1565-94-2	20-50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Ethanol	CAS No 64-17-5	30-50	Flam Liq. 2, H225 Eye Irrit. 2A, H319
MDP	CAS No 85590-00-7	5-25	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 3, H402
2-Hydroxyethyl Methacrylate	CAS No 868-77-9	5-25	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see First aid measures on this label). Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

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

- Symptoms/injuries after inhalation : May cause an allergic skin reaction.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye damage.

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

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

No additional information available.

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

- Fire hazard : Highly flammable liquid and vapor.
- Explosion hazard : May form flammable/explosive vapor-air mixture.

#### 5.3. Advice for firefighters

No additional information available

### SECTION 6: Accidental release measures

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

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

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

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

No additional information available

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### 6.4. Reference to other sections

No additional information available.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.
- Precautions for safe handling : Avoid shock and friction. Keep away from naked flames/heat. Take precautions against electrostatic charges. Take precautionary measures against static discharge. Use spark-/explosionproof appliances and lighting system. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking. Use only non-sparking tools. Avoid breathing mist, vapors.
- Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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

- Storage conditions : Keep in fireproof place. Keep container tightly closed.
- Incompatible materials : Heat sources.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### bisphenol A glycidylmethacrylate (1565-94-2)

Not applicable

#### Ethanol (64-17-5)

ACGIH ACGIH STEL (ppm) 1000 ppm (Ethanol; USA; Short time value; TLV – Adopted Value)

#### MDP (85590-00-7)

Not applicable

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

Not applicable

### 8.2. Exposure controls

Skin and Body Protection : Wear suitable protective clothing

## SECTION 9: Physical and chemical properties

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

- Physical state : Liquid
- Color : Pale Yellow
- Odor : Ethanol odor
- Odor threshold : No data available
- pH : 2.5-3.5
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : >78 Degrees C
- Flash point : > 14 Degrees C, Closed cup
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : Flammable liquid and vapour
- Vapor pressure : No data available
- Relative vapor density at 20 °C : No data available
- Relative density : 0.9-1.1
- Solubility : No data available
- Log Pow : No data available
- Log Kow : No data available

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Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: 3.3% (V) – 19% (V)

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Open flame.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>Ethanol (64-17-5)</b>	
LD50 oral rat	10740 mg/kg (Rat; Experimental value, Rat; Experimental value)
LD50 dermal rabbit	>16000 mg/kg (Rabbit; Literature study)
ATE US (oral)	10740.000 mg/kg body weight
<b>MDP (85590-00-7)</b>	
LD50 oral rat	1000-2000 mg/kg
ATE US (oral)	500.000 mg/kg body weight
<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
LD50 oral rat	5564 mg/kg body weight (Rat ; Experimental value)
LD50 dermal rabbit	>5000 mg/kg body weight (Rabbit; Experimental Value)
ATE US (oral)	5564.000 mg/kg body weight

Skin corrosion/irritation	: Causes skin irritation pH 2.5-3.5
Serious eye damage/irritation	: Causes serious eye irritation pH 2.5-3.5
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

<b>Ethanol (64-17-5)</b>	
IARC group	1- Carcinogenic to Humans
<b>MDP (85590-00-7)</b>	
IARC Group	4 – Probably Not Carcinogenic

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Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after inhalation	: May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye damage.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

<b>Ethanol (64-17-5)</b>	
LC50 Fish 1	14200 mg/l (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental Value)
<b>MDP (85590-00-7)</b>	
EC50 Daphnia 1	>100 mg/l
NOEC Chronic Fish	48 h 10 mg/l
<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
LC50 Fish 1	227 mg/l (LC50; 96h)
EC50 Daphnia 1	171 mg/l (NOEC; OECD 202: Daphnia sp. Acute Immobilization Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental Value)
EC50 Daphnia 2	380 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilization Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental Value)
Threshold limit algae 1	836 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 hr; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental Value)
Threshold Limit algae 2	345 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 hr; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental Value)

#### 12.2. Persistence and degradability

<b>bisphenol A glycidylmethacrylate (1565-94-2)</b>	
Persistence and degradability	Biodegradability in water: no data available.
<b>Ethanol (64-17-5)</b>	
Persistence and degradability	Persistence and degradability
Biochemical oxygen demand (BOD)	0.8-0.967 g O2/g substance
Chemical Oxygen demand (COD)	1.70 g O2/g substance
ThOD	2.10 g O2/g substance
BOD (% of ThOD)	0.43
<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in soil; no data available. Absorbs into the soil.

#### 12.3. Bioaccumulative potential

<b>bisphenol A glycidylmethacrylate (1565-94-2)</b>	
Log Pow	4.94 (Estimated value)
Bioaccumulative potential	No bioaccumulation data available.
<b>Ethanol (64-17-5)</b>	
BCF Fish 1	1 (BCF; Other; 72 hr; Cyprinus carpio; Stasis system; Fresh water; Read across)
Low Pow	-0.31 (Experimental Value)
Bioaccumulative potential	Low potential for bioaccumulation (Low Kow <4)
<b>2-Hydroxyethyl Methacrylate (868-77-9)</b>	
BCF Fish 1	1.3-1.5 (BCF)
Low Pow	-0.55 – 0.49 (0.42; Experimental Value; OECD 107: Partition Coefficient (n-octanol/water); Shake Flask Method; 25 Degrees C)
Bioaccumulative potential	Low Potential for bioaccumulation (BCF <500)

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### 12.4. Mobility in soil

Ethanol (64-17-5)	
Surface Tension	0.022 N/m (20 Degrees C)
Log Koc	Koc, PCKOCWIN v1.66; 1; Read across

### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
 Additional information : Handle empty containers with care because residual vapors are flammable.

## SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1170 Ethanol, 3, II  
 UN-No.(DOT) : UN1170  
 Proper Shipping Name (DOT) : Ethanol  
 Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  
 Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : III - Medium Danger  
 DOT Special Provisions (49 CFR 172.102) : 24 - Alcoholic beverages containing more than 70 percent alcohol by volume must be transported as materials in Packing Group II. Alcoholic beverages containing more than 24 percent but not more than 70 percent alcohol by volume must be transported as materials in Packing Group III.  
 B1 - If the material has a flash point at or above 38 Degrees C (100 Degrees F) and below 93 Degrees C (200 Degrees F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 Degrees C (100 Degrees F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.  
 IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31 HB2 31HN2, 31HD2 and 31 HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672)  
 T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)  
 TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.  
 DOT Packaging Exceptions (49 CFR 173.xxx) : 4b;150  
 DOT Packaging Non Bulk (49 CFR 173.xxx) : 203  
 DOT Packaging Bulk (49 CFR 173.xxx) : 242  
 DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L  
 DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L  
 DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.  
 Emergency Response Guide (ERG) Number : 127

### Additional information

Other information : No supplementary information available.

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### TDG

No additional information available

### Transport by sea

UN-No (IMDG): 1170

Class (IMDG): 3 – Flammable liquids

### Air transport

UN-No (IATA): 1170

Class (IATA): 3 – Flammable liquids

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### bisphenol A glycidylmethacrylate (1565-94-2)

Listed on the US TSCA (Toxic Substances Control Act) Inventory

Ethanol (64-17-5)

Listed on the US TSCA (Toxic Substances Control Act) Inventory

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National Regulations

No additional information available.

### 15.3. US State regulations

No additional information available.

## SECTION 16: Other information

Other information : None.

Full text of H-phrases:

H302	Highly flammable liquid and vapor
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H402	Harmful to aquatic life
H225	Highly flammable liquid and vapor
H317	May cause an allergic skin reaction

SDS US (GHS HazCom 2012)

*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*