



ALL-BOND SE / ACE ALL-BOND SE PART II

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 07/26/2017

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : ALL-BOND SE / ACE ALL-BOND SE PART II

1.2. Recommended use and restrictions on use

Use of the substance/mixture : For Rx Only

1.3. Supplier

Manufacturer

Bisco, Inc.
1100 W. Irving Park Rd.
Schaumburg, IL 60193
T 847.534.6000 - F 847.891.5049
sales@bisco.com - www.bisco.com

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: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation
Respiratory sensitization, Category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin sensitization, Category 1	H317	May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements (GHS-US) :

P261 - Avoid breathing vapors
P264 - Wash hands thoroughly after handling
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear eye protection, face protection, protective gloves
P284 - Wear appropriate mask
P302+P352 - If on skin: Wash with plenty of Wash skin with soap and water
P304+P341 - If inhaled: If breathing is difficult, 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
P321 - Specific treatment (see First aid measures on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P342+P311 - If experiencing respiratory symptoms: Call Call a doctor, a POISON CENTER
P362+P364 - Take off contaminated clothing and wash it before reuse
P363 - Wash contaminated clothing before reuse

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P501 - Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
2-Hydroxyethyl Methacrylate	(CAS-No.) 868-77-9	30 - 50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
Bisphenol A Diglycidylmethacrylate	(CAS-No.) 1565-94-2	30 - 50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Bis(Glyceryl 1,3 Dimethacrylate) Phosphate	(CAS-No.) 168191-79-5	10 - 30	Eye Irrit. 2B, H320 Skin Sens. 1, H317
Dipentaerythritol Pentaacrylate	(CAS-No.) 60506-81-2	10 - 30	Eye Irrit. 2A, H319 Skin Sens. 1, H317
Monomer	(CAS-No.) Proprietary	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334
Proprietary	(CAS-No.) Proprietary	< 1	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 3, H402

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a poison center/doctor/physician if you feel unwell. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see First aid measures on this label). If skin irritation or rash occurs:
- First-aid measures after eye contact : If eye irritation persists: Get medical advice/attention. 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. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

- Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
- Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
- Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction. Causes skin irritation.
- Symptoms/effects after eye contact : Causes serious eye irritation. Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

- Fire hazard : Combustible liquid.
Explosion hazard : May form flammable/explosive vapor-air mixture.
Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

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 open flames. No smoking.

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist, vapors. Evacuate unnecessary personnel.

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". Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. 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

- Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
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. See Heading 8. Exposure controls and personal protection.

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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Precautions for safe handling : Ensure good ventilation of the work station. No open flames. No smoking. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing mist, vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
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. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep in fireproof place. Store in a well-ventilated place. Keep cool. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Heat sources. Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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2-Hydroxyethyl Methacrylate (868-77-9)		
Not applicable		
Bisphenol A Diglycidylmethacrylate (1565-94-2)		
Not applicable		
Bis(Glyceryl 1,3 Dimethacrylate) Phosphate (168191-79-5)		
Not applicable		
Monomer (Proprietary)		
Not applicable		
Proprietary (Proprietary)		
ACGIH	Local name	Proprietary
ACGIH	ACGIH TWA (ppm)	0.5 ppm
ACGIH	ACGIH STEL (ppm)	1 ppm
ACGIH	Remark (ACGIH)	URT irr; visual impair; Skin; A4
OSHA	OSHA PEL (TWA) (mg/m ³)	100 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	25 ppm
Dipentaerythritol Pentaacrylate (60506-81-2)		
Not applicable		

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves

Eye protection:

Safety glasses. Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection. In case of inadequate ventilation wear respiratory protection

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Yellow
Odor : Acrylic
Odor threshold : No data available
pH : No data available
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available

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Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Combustible liquid. Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Combustible liquid. May form flammable/explosive vapor-air mixture. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Open flame. Overheating. Heat. Sparks. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

May release flammable gases. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2-Hydroxyethyl Methacrylate (868-77-9)	
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 mg/kg body weight

Bis(Glyceryl 1,3 Dimethacrylate) Phosphate (168191-79-5)	
LD50 oral rat	N/A
LD50 dermal rat	N/A
LD50 dermal rabbit	N/A
LC50 inhalation rat (ppm)	N/A

Monomer (Proprietary)	
LD50 oral rat	N/A
LD50 dermal rat	N/A
LD50 dermal rabbit	N/A
LC50 inhalation rat (ppm)	N/A

Proprietary (Proprietary)	
LD50 oral rat	> 460 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 730 mg/kg bodyweight; Rat)

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Proprietary (Proprietary)	
LD50 dermal rabbit	416 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 580 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	> 4.2 mg/l/4h (Rat)
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	416 mg/kg body weight
ATE US (vapors)	3 mg/l/4h

Dipentaerythritol Pentaacrylate (60506-81-2)	
LD50 oral rat	> 2000 mg/kg (Rat)

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Bis(Glyceryl 1,3 Dimethacrylate) Phosphate (168191-79-5)	
IARC group	4 - Probably not carcinogenic to humans

Monomer (Proprietary)	
IARC group	4 - Probably not carcinogenic to humans

Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified

Bis(Glyceryl 1,3 Dimethacrylate) Phosphate (168191-79-5)	
LOAEL (oral,rat)	N/A mg/kg body weight
LOAEL (dermal,rat/rabbit)	N/A mg/kg body weight
LOAEC (inhalation,rat,gas)	N/A ppmV/4h
LOAEC (inhalation,rat,vapour)	N/A mg/l/4h
LOAEC (inhalation,rat,dust/mist/fume)	N/A mg/l/4h

Monomer (Proprietary)	
LOAEL (oral,rat)	N/A mg/kg body weight
LOAEL (dermal,rat/rabbit)	N/A mg/kg body weight
LOAEC (inhalation,rat,gas)	N/A ppmV/4h
LOAEC (inhalation,rat,vapour)	N/A mg/l/4h
LOAEC (inhalation,rat,dust/mist/fume)	N/A mg/l/4h

Specific target organ toxicity – repeated exposure	: Not classified
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Bis(Glyceryl 1,3 Dimethacrylate) Phosphate (168191-79-5)	
LOAEL (oral,rat,90 days)	N/A mg/kg bodyweight/day
LOAEL (dermal,rat/rabbit,90 days)	N/A mg/kg bodyweight/day
LOAEC (inhalation,rat,gas,90 days)	N/A ppmV/6h/day
LOAEC (inhalation,rat,vapour,90 days)	N/A mg/l/6h/day
LOAEC (inhalation,rat,dust/mist/fume,90 days)	N/A mg/l/6h/day

Monomer (Proprietary)	
LOAEL (oral,rat,90 days)	N/A mg/kg bodyweight/day
LOAEL (dermal,rat/rabbit,90 days)	N/A mg/kg bodyweight/day
LOAEC (inhalation,rat,gas,90 days)	N/A ppmV/6h/day
LOAEC (inhalation,rat,vapour,90 days)	N/A mg/l/6h/day
LOAEC (inhalation,rat,dust/mist/fume,90 days)	N/A mg/l/6h/day

Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

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Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction. Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation. Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

2-Hydroxyethyl Methacrylate (868-77-9)	
LC50 fish 1	227 mg/l (LC50; 96 h)
EC50 Daphnia 1	171 mg/l (NOEC; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	380 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation 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 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
Threshold limit algae 2	345 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

Proprietary (Proprietary)	
EC50 Daphnia 2	17 mg/l (LC50; ASTM; 48 h; Ceriodaphnia dubia; Semi-static system; Fresh water; Experimental value)

12.2. Persistence and degradability

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Persistence and degradability	Not established.

2-Hydroxyethyl Methacrylate (868-77-9)	
Persistence and degradability	Readily biodegradable in water. Biodegradability in soil: no data available. Adsorbs into the soil.

Bisphenol A Diglycidylmethacrylate (1565-94-2)	
Persistence and degradability	Biodegradability in water: no data available.

Proprietary (Proprietary)	
Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	< 0.001 g O ₂ /g substance
Chemical oxygen demand (COD)	1.02 g O ₂ /g substance

Dipentaerythritol Pentaacrylate (60506-81-2)	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

2-Hydroxyethyl Methacrylate (868-77-9)	
BCF fish 1	1.3 - 1.5 (BCF)
Log Pow	-0.55 - 0.49 (0.42; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Bisphenol A Diglycidylmethacrylate (1565-94-2)	
Log Pow	4.94 (Estimated value)
Bioaccumulative potential	No bioaccumulation data available.

Proprietary (Proprietary)	
BCF fish 1	< 0.5 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio; Fresh water)
Log Pow	1.45 (Experimental value; Other)

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Proprietary (Proprietary)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Dipentaerythritol Pentaacrylate (60506-81-2)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Proprietary (Proprietary)	
Surface tension	0.021 N/m (20 °C)
Log Koc	log Koc,Other; 2.56; Calculated value

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

TDG

Transport by sea

Air transport

SECTION 15: Regulatory information

15.1. US Federal regulations

2-Hydroxyethyl Methacrylate (868-77-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Bisphenol A Diglycidylmethacrylate (1565-94-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Proprietary (Proprietary)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb

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15.2. International regulations

CANADA

No additional information available

Bisphenol A Diglycidylmethacrylate (1565-94-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

Proprietary (Proprietary)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision date : 11/17/2016

Other information : None.

Full text of H-phrases:

H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H331	Toxic if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H402	Harmful to aquatic life

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