

SECTION 1: Identification
1.1. Identification

Product form : Mixture
 Product name : Glassboost

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Printing ink

1.4. Emergency telephone number

Emergency number : CHEMTREC (800) 424-9300
 CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazard(s) identification
2.1. Classification of the substance or mixture
GHS US classification

Flam. Liq. 2
 Skin Irrit. 2
 Eye Irrit. 2A
 Skin Sens. 1
 Repr. 1B

2.2. GHS Label elements, including precautionary statements
GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

: Danger

Hazard statements (GHS US) :

: Highly flammable liquid and vapour
 Causes skin irritation
 May cause an allergic skin reaction
 Causes serious eye irritation
 May damage fertility or the unborn child

Precautionary statements (GHS US) :

: Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Keep container tightly closed.
 Ground/Bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting equipment
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Avoid breathing dust/fume/gas/mist/vapors/spray.
 Wash hands, forearms and face thoroughly after handling.
 Contaminated work clothing must not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection.
 If exposed or concerned: Get medical advice/attention.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse.
 If skin irritation or rash occurs: Get medical advice/attention.
 If in eyes: 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.
 Store in a well-ventilated place. Keep cool.
 Store locked up.
 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

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	%
1,6-Hexanediol diacrylate	(CAS-No.) 13048-33-4	10 - 30
Ethyl lactate	(CAS-No.) 97-64-3	10 - 30
Methacrylate acid ester	(CAS-No.) Proprietary	3 - 7
Phosphineoxide,diphenyl(2,4,6-trimethylbenzoyl)-	(CAS-No.) 75980-60-8	1 - 5
Isopropyl alcohol	(CAS-No.) 67-63-0	< 1.5
Dibutyl phthalate	(CAS-No.) 84-74-2	< 1

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before re-using. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : If in eyes: 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 : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
- Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- Chronic symptoms : May damage fertility or the unborn child.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

- Fire hazard : Highly flammable liquid and vapour. Products of combustion may include and are not limited to: oxides of carbon.
- Explosion hazard : May form flammable/explosive vapor-air mixture.

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5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition. Use only non-sparking tools.

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.

6.3. Methods and material for containment and cleaning up

- For containment : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/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.
- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid contact with skin and eyes. Do not swallow. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Handle and open container with care. Wear personal protective equipment. Benzene may be present in trace amounts. Benzene is subject to the standard 29 CFR 1910.1028 which may contain specific requirements for handling including protective equipment, regulated areas, monitoring and medical surveillance. The employer should review the standard and assure compliance with applicable requirements.
- Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep out of the reach of children. Keep cool. Keep container tightly closed and in a well-ventilated place. Store locked up. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,6-Hexanediol diacrylate (13048-33-4)		
AIHA	WEEL TWA (mg/m ³)	1 mg/m ³
Ethyl lactate (97-64-3)		
Not applicable		
Methacrylate acid ester (Proprietary)		
Not applicable		
Phosphineoxide,diphenyl(2,4,6-trimethylbenzoyl)- (75980-60-8)		
Not applicable		

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Isopropyl alcohol (67-63-0)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	400 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	980 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	400 ppm
IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
NIOSH	NIOSH REL (TWA) (mg/m ³)	980 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	1225 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	500 ppm
Dibutyl phthalate (84-74-2)		
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
IDLH	US IDLH (mg/m ³)	4000 mg/m ³
NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Use explosion-proof equipment.
 Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration

Eye protection:

Wear eye/face protection

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
 Color : No data available
 Odor : No data available
 Odor threshold : No data available
 pH : No data available
 Melting point : No data available
 Freezing point : No data available
 Boiling point : No data available
 Flash point : No data available
 Relative evaporation rate (butyl acetate=1) : No data available
 Flammability (solid, gas) : Highly flammable liquid and vapour.
 Vapor pressure : No data available
 Relative vapor density at 20 °C : No data available

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Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water	: 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

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sources of ignition. Direct sunlight. Incompatible materials.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

1,6-Hexanediol diacrylate (13048-33-4)	
LD50 oral rat	5 g/kg
LD50 dermal rabbit	3600 mg/kg
ATE US (oral)	5000 mg/kg body weight
ATE US (dermal)	3600 mg/kg body weight
Ethyl lactate (97-64-3)	
LD50 oral rat	8200 mg/kg
LD50 dermal rabbit	> 5 g/kg
ATE US (oral)	8200 mg/kg body weight
Methacrylate acid ester (Proprietary)	
LD50 oral rat	> 5000 mg/kg
Isopropyl alcohol (67-63-0)	
LD50 oral rat	5045 mg/kg
LD50 dermal rabbit	4059 mg/kg
LC50 inhalation rat	72600 mg/m ³ (Exposure time: 4 h)
ATE US (oral)	5045 mg/kg body weight
ATE US (dermal)	4059 mg/kg body weight
ATE US (vapors)	72.6 mg/l/4h
ATE US (dust, mist)	72.6 mg/l/4h

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Dibutyl phthalate (84-74-2)	
LD50 oral rat	7499 mg/kg
LD50 dermal rabbit	> 20000 mg/kg
LC50 inhalation rat	≥ 15.68 mg/l/4h
ATE US (oral)	7499 mg/kg body weight

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

Isopropyl alcohol (67-63-0)	
IARC group	3 - Not classifiable

Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic symptoms	: May damage fertility or the unborn child.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: May cause long-term adverse effects in the aquatic environment.
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Isopropyl alcohol (67-63-0)	
LC50 fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Dibutyl phthalate (84-74-2)	
LC50 fish 1	0.71 - 1.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2.99 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	0.31 - 5.45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	3.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Glassboost	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Glassboost	
Bioaccumulative potential	Not established.

Isopropyl alcohol (67-63-0)	
Partition coefficient n-octanol/water	0.05 (25 °C)

Dibutyl phthalate (84-74-2)	
Partition coefficient n-octanol/water	5.38 (25 °C)

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging 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

Department of Transportation (DOT)

In accordance with DOT

UN-No.(DOT) : UN1993
Proper Shipping Name (DOT) : Flammable liquids, n.o.s.
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : II
Hazard labels (DOT) :



SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. International regulations

No additional information available

15.3. US State regulations

⚠ WARNING: This product can expose you to Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.