

U-BOND
(Acid Free)

Section 1 - Identification of the Substance/Preparation and of the Company/Undertaking

Product Name: U-BOND (Acid Free Primer) Chemical Name: Primer Family Name: Primer Product Use: Adhesion Improvement Product No. IM-PAF15	MSDS Prepared By: ALD Supplier: Impression Beauty International U.A.E. Emergency Phone Numbers: (800) 535 -5053 (Please quote the MSDS number) Information Contacts: (971) 67453254/5
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Section 2- Composition/Information on Ingredients

Chemical Identity	CAS Nos.	EINECS#	INCI Name	Exposure OSHA TWA/STEL	Limits ACGIH TWA/STEL	Carcinogen IARC/NTP/OSHA	%
Ethyl Acetate	141 - 78 - 6	205-500-4	Ethyl Acetate	400 ppm	400 ppm	Not Listed	80-85
2,2-bis-(4-(2-hydroxy-3-methacryloxypropoxy) BIS-GMA	1565-94-2	216-367-7	Isopropylidenediphenyl bisoxyhydroxypropyl methacrylate	N/E	N/E	Not Listed	5-10
2-Hydroxy ethyl methacrylate	868-77-9	205-769-8	HEMA	N/E	N/E	Not Listed	5-10

N/E - None Established
N/R - Not Reviewed
N/DA - No Data Available
N/A - Not Applicable

Ethyl Acetate: Hazard Symbol – F, Xi Risk Phrases – R11, R36, R66, R67 Safety Phrases – S2, S16, S26, S33
2,2-bis-(4-(2-hydroxy-3-methacryloxypropoxy) BIS-GMA: Hazard Symbols – N/E Risk Phrases – N/E Safety Phrases – N/E
2-Hydroxy ethyl methacrylate: Hazard Symbols – Xi Risk Phrases – R36/38, R43 Safety Phrases – S2, S26, S28

See Section 16 for Risk and Safety Phrase Key

Section 3 Hazards Identification

EMERGENCY OVERVIEW
This information is based on findings from related or similar materials

- May cause eye irritation.
- **Flammable liquid and vapor!**
- May cause skin irritation.
- Avoid prolonged or repeated breathing of gases, vapors or mists.
- Unstable (reactive) upon depletion of inhibitor. This is only a slight risk.
- May be absorbed through the skin.

Potential Health Effects, Signs and Symptoms of Exposure:

Primary Route of Entry	Inhalation, skin contact, eye contact
Eye	Exposure causes eye irritation. Symptoms include stinging, tearing, redness and swelling. Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying, cracking, and skin burns.
Skin	Swallowing small amounts during normal handling is not likely to cause harmful effects; swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting.
Ingestion	Vapor and mist are irritating to mucous membranes. Breathing small amounts during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits.
Inhalation	May cause headaches, nausea, vomiting and narcotic effect if over-exposed.
Sub-Chronic Effects	No appropriate human or animal health effects data are known to exist.
Chronic Health Effects (Long-term)	

NOTE: Refer to Section 11, Toxicological Information for Details

Section 4- First Aid Measures

First Aid for Eye	If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently for 15 min. with water while holding eyelids apart. If symptoms persist or there is
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First Aid for Skin	any visual difficulty, seek medical attention. Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention.	
First Aid for Inhalation	Remove to fresh air. If breathing is difficult, administer oxygen. If symptoms persist, seek medical attention.	
First Aid for Ingestion	If individual is drowsy or unconscious, do not give anything by mouth; place individual on the leftside with the head down. Seek medical attention for advice about whether to induce vomiting. If possible, do not leave individual unattended.	
Section 5- Fire Fighting Measures		
Flash Point(°F/°C)	Flammable Limit(vol%)	Auto-ignition Temperature(vol%)
TAG Closed: 26°F / -3.3°C	400 ppm	750 ° F - 900 ° F
Method: Extinguishing Media	Foam, dry chemical, cold water spray	
Fire Fighting Instructions	Wear self-contained breathing apparatus and protective clothing. USE WATER WITH CAUTION. Water spray may be used to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a safe distance and protected location.	
Unusual Hazards	Flammable. When exposed to heat and flame, material is a fire explosion hazard. It may produce toxic products CO, carbon dioxide. Vapors may cause a flash fire or ignite explosively. Vapors may travel a considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations.	
Section 6- Accidental Release Measures		
Spill or Release Procedures	Eliminate all sources of heat and ignition. Use absorbent material for spills and dike it, wash spill material into retaining containers. Place containers in a well ventilated area. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures	
Section 7- Handling and Storage		
Handling	Keep containers cool and dry. Keep away from heat, light and ignition sources. Avoid breathing high vapor concentrations. Avoid prolonged or repeated contact with skin. Use only with adequate ventilation. Wash skin thoroughly after handling.	
Storage	Store in a well ventilated area. Store @ 70 + 15 ° F, allow some air space above liquid level. Keep containers closed while not in use.	
Explosion Hazard	Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can	



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		ignite explosively.					
Section 8- Exposure Controls/Personal Protective Equipment							
Engineering Controls	Facilities storing or utilizing this material should be equipped with an eye facility and safety shower. Use process enclosures local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment						
Personal Protective Equipment	To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) or European Standard EN166 be conducted before using this product. Provide eye wash stations and safety showers. Wear impervious clothing to prevent ANY contact with this product, such as gloves, apron, boots, or whole body suit. Nitrile rubber is better than PVC.						
General	Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type of safety glasses.						
Eye/ Face Protection	Wear resistant gloves. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.						
Skin Protection	A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain limited circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.						
Respiratory Protection							
Section 9- Physical and Chemical Properties							
Appearance	Odor & Odor Threshold	pH	VOC (g/L)	Specific Gravity	Viscosity	%Volatile	
Clear liquid	ester like odor	NA	736	(H2O=1): 0.92	15 cps	W/W % : 50+	
Boiling Point/ Freezing Point	Decomposition/ Temperature	Octanol/Water Partitioning Coefficient Log Po/w	Vapor Pressure:	Vapor Density	Evaporation Rate	Ignition	Solubility In Water (20°C)
N/DA	N/DA	N/DA	N/DA	(Air=1):	NA	NA	Insoluble
Flash Point(°F/°C)		Flammable Limit (vol%)		Auto-ignition Temperature(vol%)			
TAG Closed: 26°F / -3.3°C		400 ppm		750 ° F - 900 ° F			
Section 10- Stability and Reactivity							
Stability: Stable				Incompatibility (Materials to Avoid): Avoid oxidizing agents, acids & bases (heat)			
Hazardous Decomposition Products: Heated material produces NO ₂ , CO ₂ , CO				Hazardous Polymerization: May occur			
Conditions to Avoid: Heat, flame, ignition sources							
Section 11- Toxicological Information							

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Acute Oral Toxicity	Acute Dermal Toxicity	Acute Inhalation Toxicity	Irritation - skin	Irritation - Eye
Oral LD50 (rat) : 4.0-6.0g/kg	Dermal LD50 (rabbit): >20mL/kg	Inhalation LC50 (rat) : 3500 - 8000 ppm/4 hours	Rabbit : slight	Rabbit : slight
Since this product contains a mixture of active components, the primary toxicological information is derived from the acetates. Further hazardous properties cannot be excluded. The product should be handled with care when dealing with chemicals.				
Sensitization		Mutagenicity		Sub-chronic Toxicity
N/DA		E.Coli: DNA Damage: 20mol/L		N/DA
Section 12- Ecological Information				
Ecotoxicological Information				
Acute Toxicity to Fish	Acute Toxicity to Invertebrates	Acute Toxicity to Algae	Bioconcentration	Toxicity to Sewage Bacteria
N/DA	N/DA	N/DA	N/DA	N/DA
Chemical Fate Information				
Biodegradability			N/DA	
Chemical Oxygen Demand			N/DA	
Section-13 Disposal Consideration				
Dispose of diking materials and absorbent in compliance with State, Local, and Federal regulations. Residual vapors may explode on ignition; do not cut, drill, or weld on or near the container. Mix with compatible chemical which is less flammable and incinerate.				
Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements. For EU Member States, please refer to any relevant Community provisions relating to waste. In their absence, it is useful to remind the user that national or regional provisions may be in force				
Section 14- Transport Information				
DOT (49 CFR 172)				
Proper Shipping Name:			UN1993, Flammable liquids, n.o.s., (ethyl acetate, monomers), 3, PGII	
Identification Number			UN1993	
Marine Pollutant:			No	
Special Provisions:			T8, T31	
Emergency Response Guidebook (ERG) #:			128	
IATA (DGR):				
Proper Shipping Name			UN1993, Flammable liquids, n.o.s., (ethyl acetate, monomers), 3, PGII	
Class or Division			3	
UN or ID Number			UN1993	
Packaging Instructions:			A3	
Emergency Response Guidance (ICAO)#:			3L	
IMO (IMDG):				
Proper Shipping Name			UN1993, Flammable liquids, n.o.s., (ethyl acetate, monomers), 3, PGII	
Class or Division:			3.2	
UN or ID Number:			UN1993	
Special Provisions & Stowage/Segregation			None	
Emergency Schedule (Ems)#:			307	

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Other Information		Flash point = -3.3°C
Section 15- Regulatory Information		
US Federal Regulations		
Clean Air Act: HAP/ODS	This product contains the following hazardous air pollutant (HAP), as defined by the U. S. Clean Air Act: • NONE. There are no ODS substances in this product.	
Clean Water Act: HS/Priority Pollutant	This product contains the following chemicals listed under the U. S Clean Water Act Hazardous Substance List: • NONE The following chemicals are listed as primary pollutants: • NONE	
FDA: Food Packaging Status	This product has not been cleared by the FDA for use in food packaging and /or other applications as an indirect food additive	
Occupational Safety and Health Act	This product is considered to be hazardous under the OSHA Hazard Communication Standard. Its hazard are: • IMMEDIATE (acute) HEALTH HAZARD • FIRE HAZARD	
RCRA	This product contains the following chemicals considered to be hazardous waste under RCRA (40 CFR 261): • Ethyl Acetate CAS #141 - 78 - 6 RCRA Code: U112	
SARA Title III: Section 302 (TPQ)	This product contains no chemicals regulated under Sec. 302 as extremely hazardous substances.	
SARA Title III: Section 302 (RQ)	This product contains chemicals regulated under Section 304 as extremely hazardous chemicals for emergency release notification ("CERCLA" List): • Ethyl Acetate , CAS #141-78-6, RQ (Lbs) : 5000	
SARA Title III: Section 311-312	This product is considered to be hazardous under the OSHA Hazard Communication Standard and is regulated under Section 311-312 (40 CFR 370). Its hazards are: • IMMEDIATE (acute) HEALTH HAZARD • FIRE HAZARD • REACTIVE HAZARD	
SARA Title III: Section 313:	This product contains no chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372	
TSCA Section 8(b): Inventory: TSCA Significant New Use Rule	This product contains chemicals listed on the TSCA inventory or otherwise complies with TSCA premanufacture notification requirements. None of the chemicals listed have a SNUR under TSCA	
State Regulations		
CA Right-to-Know Law: California No Significant Risk Rule	Ethyl Acetate CAS #141-78-6 NONE	
MA Right-to-Know Law:	Ethyl Acetate CAS #141-78-6	
NJ Right-to-Know Law:	Ethyl Acetate CAS #141-78-6	
PA Right-to-Know Law:	Ethyl Acetate CAS #141-78-6	
FL Right-to-Know Law:	Ethyl Acetate CAS #141-78-6	
MN Right-to-Know Law:	Ethyl Acetate CAS #141-78-6	
International Regulations		
CDSL: Canadian Inventory (on Canadian Transitional List)	Ethyl Acetate CAS #141-78-6 is on the DSL List. WHMIS = B2, D2B 2,2-bis-(4-(2-hydroxy-3-methacryloxypropoxy)BIS-GMA CAS# 1565-94-2 is n/da for the DSL List. WHMIS = n/da 2-Hydroxyethyl methacrylate CAS #868-77-9 on the DSL List. WHMIS = n/da	
Labeling according to EC Directives - 1999/45/EC		
European Community:	  <p>U-BOND (Acid Free) • Hazard Symbols: Xi, F • Risk Phrases: R11, highly flammable, R36: Irritating to eyes, R43: May cause sensitization by skin contact, R66: repeated exposure may cause skin dryness and cracking, R67: Vapors may cause drowsiness and dizziness. • Safety Phrases: S16: keep away from sources of ignition- no smoking, S26: in case of contact with eyes, rinse immediately, S28A: after contact with skin, wash immediately with</p>	

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plenty of water, S33: take precautionary measures against static discharges, S36/37: Wear suitable protective clothing and gloves

Section 16 - Other Information

EU Classes and Risk / Safety Phrases for Referenced Ingredients (See Section 2): Hazard Symbol:

F – Flammable substances or preparations
Xi – Irritants

Risk Phrases:

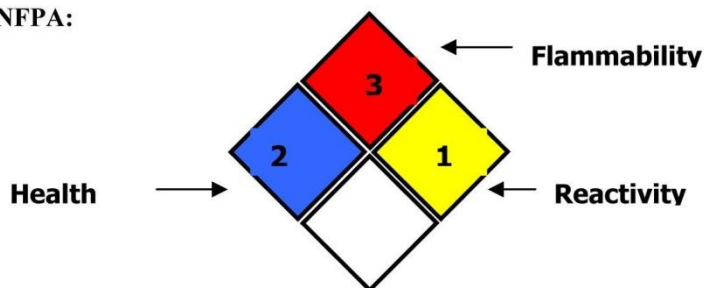
R11 Highly flammable; R36 Irritating to eyes; R36/38 Irritating to eyes and skin
R43 May cause sensitisation by skin contact; R66 Repeated exposure may cause skin dryness or cracking; R67 Vapors may cause drowsiness and dizziness

Safety Phrases:

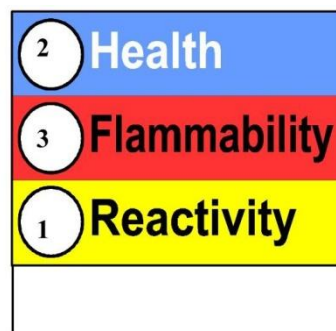
S2 Keep out of the reach of children; S16 Keep away from sources of ignition - No smoking; S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; S28 After contact with skin, wash immediately with plenty of water; S33 Take precautionary measures against static discharges.

Hazard Rating System (Pictograms)

NFPA:



HMIS:



Revision History:

11/08/04 Updated formatting and Section II % content revision
12/20/07 DOT Name update
09/18/08 Updated section 16
10/22/08 Updated Format
11/04/08 Updated Risk and Safety Phrases
12/09/08 Updated specific gravity and VOC

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