

Issue Date: 26/02/08
Revision Number: 4
Document Number: 06-007
Material/Trade name: imagepac

1. Substance Identification

Material/Trade Name: imagepac
Material type: Photopolymer UV Resin
Company: PhotoCentriC Ltd
 10 Stevern Way
 Peterborough
 PE1 5EL
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2. Composition *

Substance		%Wt.	CAS No:	EC No:
High Mol. Wt. Urethane methacrylate pre-polymer	XI;R36/37/38	<40	proprietary	proprietary
Methacrylate Ester	XI;R36/37/38	<30%	39420-45-6	polymer
2-Hydroxypropyl Methacrylate	XI;R36-43	<10%	923-26-2	213-090-3
Trethylene Glycol Dimethacrylate	XI;R36/37/38	<10%	109-16-0	203-652-6
Polyethylene Glycol Methacrylate derivative	XI;R36/37/38	<10%	proprietary	proprietary
Tetradecanoic acid	XI;R36/37/38	<5%	544-69-8	208-875-2
Acrylated oligomer	XI;R36	<3%	proprietary	proprietary
Benzophenone Derivative	T;R24 XI;R36/38-43	<1%	proprietary	proprietary

3. Hazard Identification

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN
 MAY CAUSE SENSITISATION BY SKIN CONTACT

Avoid contact with skin and eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

Wear suitable gloves

4. First-aid Measures

Inhalation: Remove to fresh air and rest. If recovery is not rapid call for prompt medical attention
 Show this safety data sheet to medical personnel

Eyes: In case of accidental eye contact, avoid concurrent exposure to the sun or other sources of UV light that may increase the sensitivity of the eyes. Remove contact lenses if easily and quickly possible. Immediately irrigate with water for at least 15 minutes, holding eyelids apart. Take care not to wash chemical from one eye to another
 Get prompt medical attention

Skin: In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light that may increase the sensitivity of the skin. Remove contaminated clothing. Wash with soap/cleanser and rinse with plenty of water. If irritation persists, obtain medical attention.

Ingestion: Do not induce vomiting. Give plenty of water to drink. Beware of aspiration if vomiting occurs. Seek medical attention immediately.

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5. Fire-fighting Measures

Suitable Extinguishers: Alcohol resistant foam Dry powder Carbon dioxide

Unsuitable Extinguishers: Direct water jets

Hazardous Decomposition: Product may polymerise when exposed to UV light or at high temperature. Polymerisation is exothermic and may produce sufficient heat to cause thermal decomposition and/or rupture the container. Thermal decomposition can lead to the evolution of noxious and irritant fumes. Possible fire hazard – CO, CO₂, oxides of nitrogen possibly evolved, as well as dense, black, acrid smoke.

Special Procedures: Keep container cool by spraying with water if exposed to fire. Do not breathe decomposition products and fumes. Use approved self-contained breathing apparatus. Wear fire retardant clothing. Wear eye protection. Prevent runoff from fire control from entering waterways. Large fires should only be dealt with by trained personnel.

6. Accidental Release Measures

Exposure Controls: Ventilate area
Evacuate all personnel. Use barriers to prevent unauthorised entry into contaminated areas. Do not allow spill to enter drains and watercourses.

Personal Protection: Wear suitable respiratory protection for spillages and in confined spaces e.g. EN405 FFA2 or EN140 A2. Wear suitable protective clothing. Wear nitrile or viton gloves. Do not use natural rubber or PVC, as they absorb acrylates. Wear chemical resistant overalls and boots. Use eye protection such as goggles to BS EN 166 Chemical Grade.

Disposal Considerations: Absorb in inert material such as sand or absorbent granules
Scoop up and place in plastic container to await transfer
Dispose in accordance with local regulations.

7. Handling and Storage

Handling: Avoid skin and eye contact. Avoid inhalation of vapour - ensure adequate ventilation and or use local extraction. Wear suitable protective clothing (see section 8). Do not use near heat, sparks or sources of ignition. Do not eat, drink or smoke in the area of use. Do not return product that has been exposed to light to the original container.

Storage: Store in tightly closed, labelled containers. Store in a cool, dry, well-ventilated area out of direct sunlight. Keep away from raised temperature (>50°C) and sources of ignition. Keep away from oxidising agents and from strong acids and alkalis. Can be stored in stainless steel, or opaque polyethylene or glass containers. Do not allow to contact or store in aluminium, mild steel, rusty steel, copper (or alloys of) or tin vessels.

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8. Exposure Controls

Occupational Exposure Limited: Wear nitrile or viton gloves. Do not use natural rubber or PVC gloves, as they adsorb acrylates. Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility, etc.) is noticed.

Wear suitable eye protection, such as glasses rated to BS EN 166. Use in well ventilated areas. Use mechanical ventilation if exposed for prolonged periods. If excessive inhalation in a poorly ventilated area is likely then use a respirator with filter type A.

After skin contact, wash off immediately with plenty of water. If handling large quantities wear suitable protective clothing. Remove contaminated clothing and shoes immediately. Do not wear contaminated clothing.

9. Physical & Chemical Properties

Appearance : Clear viscous liquid
Odour : Characteristic
PH : neutral
Boiling point/range : >100°C
Melting point/range : Not established
Flash point : >100°C (Closed Cup)
Flammability : Non-Flammable
Explosive properties : None
Oxidising properties : None
Vapour pressure : <1mmHg at 20°C
Relative density : 1.07
Solubility : Organic soluble
Vapour Density : Not established
Viscoslty : ~10,000-30,000 cPs
Evaporation rate : Not established
 (Bu Ac = 1)

10. Stability and Reactivity

Conditions to avoid: Stable at normal temperatures
 Elevated temperatures (>70°C), UV light sources, direct sunlight, sources of ignition, low oxygen environments. Hazardous exothermic polymerisation can occur if exposed to these conditions. Air space/oxygen above the product is important to keep the formulation stable.

Materials to avoid: Oxidising agents, free-radical initiators, strong alkalis, reducing metal oxides. Do not allow to contact or store in aluminium, mild steel, rusty steel, copper (or alloys of) or tin vessels. Hazardous exothermic polymerisation can occur if exposed to these materials.

Hazardous decomposition products: Combustion/exothermic polymerisation will generate oxides of carbon, acrid smoke and irritating fumes.

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11. Toxicological Information

Acute oral toxicity	Expected to be very low – LD50 is likely to be in the range of 3000-10000mg/kg.
Rat	Ingestion may cause nausea, weakness and CNS depression.
Acute dermal toxicity	Expected to be very low – LD50 is likely to be in the range of 3000
Rat	10000mg/kg.
Acute inhalation toxicity	Not tested expected to be very low.
Acute eye irritation/corrosion	Causes irritation. Conjunctival irritant and temporary corneal injury possible. Profuse eye watering and redness.
Acute dermal irritation/corrosion	Irritation and redness at the site of contact. Prolonged or repeated contact may lead to itching, soreness, blistering, dermatitis, etc.
Acute skin sensitisation	Skin sensitisation is possible.
Mutagenicity	Not tested but not expected
Carcinogenicity	Not tested but not expected
Reproductive toxicity	Not tested but not expected

12. Ecological Information

Ecotoxicity	Expected to be low. HPMA has a LC50 (48h, golden ide) = 493mg/l
Persistence	Expected to be low. No significant accumulation expected.
Bioaccumulative potential	Considered to be biodegradable. BOD 28 >20%ThOD
Mobility	Considered to be low due to relatively low water solubility.

13. Disposal Considerations

Waste from residues / unused products

Residual chemical should be disposed by incineration or by other modes of disposal in compliance with local legislation.

Contaminated packaging

Contaminated packaging material should be treated in accordance with local legislation.

14. Transport Information

Flash point	not applicable
ADR/RID	Class: Free
IMO	Class: Free
ICAO	Class: Free

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15. Regulatory Information



Classification	Classification according to EU, Annex 1; EC label	
Symbol(s)	Xi Irritant	
R-Phrases	R36/37/38 R43	IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN MAY CAUSE SENSITISATION BY SKIN CONTACT
S-Phrases	S2 S24/25 S26 S37	Keep out of reach of children Avoid contact with skin and eyes In case of contact with eyes, rinse immediately with plenty of water and seek medical advice Wear suitable gloves

16. Other information

Safety phrases in section 15:-

S2 Keep out of reach of children

This Safety Data Sheet is compiled with reference to The Chemical (Hazard Information and Packaging for Supply) Regulations 2004 (CHIP3.1), which implement the Council Directives 67/548/EEC (The Dangerous Substances Directive) and 2004/73/2004 (The Dangerous Preparations Directive), which implements the 29th ATP of 67/548EEC.