(In compliance with EC/1907/2006 Article 31 and Annex II)
Revision Date: 14/11/2012
Revision Number: 0
Material/Trade Name: CLEARERASE PART 1 (POLYMER HARDENER)

1 – Identification of Substance/Mixture and of the Company/Undertaking

Material/Trade Name : ClearErase Part 1 (Polymer Hardener)
Material type : Mark Resistant Clear Coat
Company : Tektura PLC
Address : 34 Harbour Exchange Square
London
E14 9GE
Telephone : 020 7536 3300

2 – Hazards Identification

Classification of the substance or mixture

According to Regulation (EC) No.1272/2008

Eye Irritant (Category 2)	H319	Causes serious eye irritation
Skin Sensitiser (Category 1)	H317	May cause an allergic skin reaction

According to European Directive 67/548/EEC as amended

Xi; Irritant

R36	Irritating to eyes
R43	May cause sensitisation by skin contact

3 – Composition/Information on Ingredients

CAS No.	EC No.	Index No.	Classification	Concentration
Homopolymer of (HDI) Hexamethylene Diisocyanate				
28182-81-2	500-060-2	-	Eye Irrit. 2; Skin Sens. 1 H319, H317 Xn; R36, R43	50-100%
Polyisocyanate based on HDI				
-	-	-	Skin Sens. 1 H317 Xi; R43	15-25%
Hexamethylene-1,6-Diisocyanate				
822-06-0	212-485-8	615-011-00-1	Acute Tox. 3; Eye Irrit. 2; STOT SE 3; Skin Irrit. 2; Resp. Sens. 1; Skin Sens. 1 H331, H319, H335, H315, H334, H317 T; R23, Xi; R36/37/38, R42/43	<0.1%

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
Irrigate with water for at least 15 minutes. Take care not to wash chemical from one eye to another. If irritation persists, obtain medical attention.

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. If feeling unwell seek prompt medical attention.

5 - Fire-fighting Measures

Suitable Extinguishers
Use media such as alcohol/aqueous foam, dry chemical, or carbon dioxide. Use water spray/fog to cool containers.
Unsuitable Extinguishers
None.
Special Procedures/information for fire-fighters
Do not breathe decomposition products and fumes. Use approved self-contained breathing apparatus. Wear fire retardant clothing. Use water spray to cool containers. Prevent runoff from fire control from entering waterways. Large fires should only be dealt with by trained personnel.

6 - Accidental Release Measures

Personal Protection and Precautions
Use suitable personal protective equipment (refer to Section 8 for details). Avoid breathing vapours. Ensure adequate ventilation.

Environmental Precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains or watercourses.

Containment, Cleaning up and Disposal Considerations
Absorb in inert material such as sand or non-combustible absorbent granules
Scoop up and place in plastic container to await transfer
Refer to Section 13 for further information regarding disposal.

7 - Handling and Storage

Handling
Avoid contact with eyes, skin, clothing and inhalation of vapour or mist.
Storage
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8 - Exposure Controls/Personal Protection

Occupational Exposure Limit: 0.02 mg/m^3 8hrTWA WEL Homopolymer of (HDI) Hexamethylene Diisocyanate
0.02 mg/m^3 8hrTWA WEL Hexamethylene-1,6-Diisocyanate

Respiratory Protection
Use in well ventilated areas. Use mechanical ventilation if possible. If excessive inhalation in a poorly ventilated area is likely then use a respirator with filter type A.
Hand Protection
Wear Nitrile, Butyl, PVC or Neoprene gloves to Standard EN 374 (with breakthrough time in excess of 8 hours).
Eye Protection
Wear suitable eye protection such as safety glasses or goggles to Standard BS EN 166 if splash or eye contact likely.
Skin Protection
Wear suitable overalls or apron and change if contaminated. After contact with skin wash off immediately. Wash hands before breaks and immediately after using the product.

9 - Physical & Chemical Properties

Appearance : Liquid
Odour : None
pH : n/e
Boiling point/range : n/e
Melting point/range : n/e
Flash point : 57°C
Flammability : NON FLAMMABLE
Autoflammability : n/e
Explosive properties : n/e
Oxidising properties : n/e
Vapour pressure : 5.2 x 10^{-9} @ 68 F (20C) mmHg
Relative density : n/e
Solubility : Soluble in organic solvents – will react with water
Partition Coefficient : n/e
Vapour Density : >1
Viscosity : n/e
Evaporation rate : n/e

(n/e = not established)

10 - Stability and Reactivity

Chemical Stability
Stable at normal temperatures and under recommended storage conditions.
Conditions to Avoid
Extreme temperatures, direct sunlight and incompatible substances.
Materials to Avoid
Water, amines, strong bases, alcohols, copper alloys.
Hazardous Decomposition Products
Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense, black smoke. Hydrogen cyanide, isocyanate, Isocyanic Acid,

11 - Toxicological Information

Acute toxicity
Toxic by inhalation. For pure Hexamethylene-1,6-Diisocyanate;

LD_{50} Oral, mouse 350 mg/kg

LC_{50} Inhalation, rat 275mg/m^3/1h

LD_{50} Dermal, rabbit 596 mg/kg
Skin corrosion/irritation
Not expected to cause any acute skin corrosion or irritation
Serious eye damage/eye irritation
Causes serious eye irritation.
Respiratory or skin sensitisation
May cause allergic skin reaction
Germ cell mutagenicity
No data available
Carcinogenicity
No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
Eyes – causes serious eye irritation
Specific target organ toxicity - repeated exposure
Skin – May cause an allergic skin reaction

Potential health effects
Inhalation May cause respiratory tract irritation.
Ingestion May be harmful if ingested in quantity.
Skin May causes sensitisation
Eyes Causes serious eye irritation

Signs and Symptoms of Exposure
Cough, Shortness of breath, Headache, Nausea, Vomiting and Lung irritation. Repeated exposure may cause asthma.

12 - Ecological Information

Toxicity

96h LC_{50} (fish)	>100mg/L
48hEC_{50} (daphnia magna)	>100mg/L
72hEC_{50} (algae)	>1000mg/L

Persistence and degradability
No data available.

Mobility in soil
No data available.

PBT and vPvB assessment
No data available.

Bioaccumulative potential
No data available

Other adverse effects
No data available

13 -Disposal Considerations

Product
Material is classified as hazardous waste under the Hazardous Waste Regulations 2005 as amended). Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging
Dispose of as unused product.

14 -Transport Information

ADR/RID	Not classified as hazardous for transport
IMDG	Not classified as hazardous for transport
Marine pollutant:	No
IATA	Not classified as hazardous for transport

15 - Regulatory Information

Label Elements

Pictogram

Signal Word	Warning

Hazard Statement(s)

H319	Causes serious eye irritation
H317	May cause an allergic skin reaction

Precautionary statement(s)

P305 + P351 + P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention
P363	Wash contaminated clothing before reuse.

Other Regulations

Health & Safety at Work etc. Act 1974
Control of Substances Hazardous to Health Regulations 2002 (as amended)
Chemicals (Hazard Information and Packaging for Supply) Regulations 2009
Classification, Labelling and Packaging of Substances and Mixtures Regulations 2008 (as amended)
EH40/2005 Workplace Exposure Limits (as amended)
Environmental Protection Act 1990
Hazardous Waste Regulations 2005 (as amended)

16 - Other Information

Text of H-code(s) and R-phrase(s) mentioned in Section 3

H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H335	May cause respiratory irritation
H315	Causes skin irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled

R23	Toxic by inhalation
R36/37/38	Irritating to eyes, respiratory system and skin
R42/43	May cause sensitisation by inhalation and skin contact

Recommended restrictions on use
Use in accordance with manufacturer's technical instructions.

Revision History
First Issue

Further Information
The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations, management and for people working with or handling these products. This information is believed to be reliable and updated at Revision Date, and represents the best information currently available and known by Tektura PLC. However, Tektura PLC makes no guarantee or warranty, express or implied, with respect to such information and we assume no liability resulting from its use. The information related herein is based on proper handling and anticipated uses and is for the material without chemical additions or alterations. Users should make their own investigations to determine the suitability of the information for their particular purposes. It is the responsibility of the user to undertake a suitable risk assessment/COSHH assessment prior to using this material.

(In compliance with EC/1907/2006 Article 31 and Annex II)
Revision Date: 14/11/2012
Revision Number: 0
Material/Trade Name: CLEARERASE PART 2 (ACRYLIC COATING)

1 – Identification of Substance/Mixture and of the Company/Undertaking

Material/Trade Name : ClearErase Part 2 (Acrylic Coating)
Material type : Mark Resistant Clear Coat
Company : Tektura PLC
Address : 34 Harbour Exchange Square
London
E14 9GE
Telephone : 020 7536 3300

2 – Hazards Identification

Classification of the substance or mixture

Not classified as hazardous according to Regulation (EC) No.1272/2008

Not classified as hazardous according to European Directive 67/548/EEC as amended

3 – Composition/Information on Ingredients

CAS No.	EC No.	Index No.	Classification	Concentration
Propylene glycol monobutyl ether (3-butoxypropan-2-ol)				
5131-66-8	225-878-4	603-052-00-8	Eye Irrit. 2; Skin Sens. 2 H319, H315 Xn; R36/38	1-5%
Triethanolamine				
102-71-6	-	-	-	1-4%
Amorphous Silica				
7631-86-9	-	-	-	0.3%

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
Irrigate with water for at least 15 minutes. Take care not to wash chemical from one eye to another. If irritation persists, obtain medical attention.
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. If feeling unwell seek prompt medical attention.

5 - Fire-fighting Measures

Suitable Extinguishers
Use media such as alcohol/aqueous foam, dry chemical, or carbon dioxide or water spray/fog which are suitable and appropriate for any surrounding fire.
Unsuitable Extinguishers
None.
Hazardous Decomposition
Carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanate, isocyanic acid
Special Procedures/information for fire-fighters
Do not breathe decomposition products and fumes. Use approved self-contained breathing apparatus. Wear fire retardant clothing. Use water spray to cool containers. Prevent runoff from fire control from entering waterways. Large fires should only be dealt with by trained personnel.

5 - Fire-fighting Measures

Suitable Extinguishers
Use media such as alcohol/aqueous foam, dry chemical, or carbon dioxide or water spray/fog which are suitable and appropriate for any surrounding fire.
Unsuitable Extinguishers
None.
Special Procedures/information for fire-fighters
Do not breathe decomposition products and fumes. Use approved self-contained breathing apparatus. Wear fire retardant clothing. Use water spray to cool containers. Prevent runoff from fire control from entering waterways. Large fires should only be dealt with by trained personnel.

6 - Accidental Release Measures

Personal Protection and Precautions
Use suitable personal protective equipment (refer to Section 8 for details). Avoid breathing vapours. Ensure adequate ventilation.

Environmental Precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains or watercourses.

Containment, Cleaning up and Disposal Considerations
Absorb in inert material such as sand or non-combustible absorbent granules
Scoop up and place in plastic container to await transfer
Refer to Section 13 for further information regarding disposal.

7 - Handling and Storage

Handling
Avoid contact with eyes, skin, clothing and inhalation of vapour or mist.
Storage
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8 - Exposure Controls/Personal Protection

Occupational Exposure Limit: 6 mg/m^3 8hrTWA WEL Amorphous silica – inhalable dust
2.4 mg/m^3 8hrTWA WEL Amorphous silica – respirable dust

Respiratory Protection
Use in well ventilated areas. Use mechanical ventilation if possible. Use mechanical ventilation if possible. If excessive inhalation in a poorly ventilated area is likely then use a respirator with filter type A.
Hand Protection
Wear Nitrile, Butyl, PVC or Neoprene gloves to Standard EN 374 (with breakthrough time in excess of 8 hours).
Eye Protection
Wear suitable eye protection such as safety glasses or goggles to Standard BS EN 166 if splash or eye contact likely.
Skin Protection
Wear suitable overalls or apron and change if contaminated. After contact with skin wash off immediately. Wash hands before breaks and immediately after using the product.

9 - Physical & Chemical Properties

Appearance : Liquid
Odour : None
pH : n/e
Boiling point/range : 99°C
Melting point/range : n/e
Flash point : n/e
Flammability : NON FLAMMABLE
Autoflammability : 430°C
Explosive properties : n/e
Oxidising properties : n/e
Vapour pressure : n/e
Relative density : n/e
Solubility : n/e
Partition Coefficient : n/e
Vapour Density : n/e
Viscosity : n/e
Evaporation rate : n/e

(n/e = not established)

10 - Stability and Reactivity

Chemical Stability
Stable at normal temperatures and under recommended storage conditions.
Conditions to Avoid
Extreme temperatures, direct sunlight and incompatible substances. Ignition sources and protect from freezing.
Materials to Avoid
Strong oxidizing agents, strong bases, Strong acids, water reactive materials.
Hazardous Decomposition Products
Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx).

11 - Toxicological Information

Acute toxicity
Toxic by ingestion. For pure Triethanolamine;

LD_{50} Oral, mouse 5846 mg/kg

LD_{50} Oral, rat 5530mg/kg

LD_{50} Oral, rabbit 2200 mg/kg

LD_{50} Oral, guinea pig 2200 mg/kg

LD_{50} Dermal, rabbit 22.5g/kg

For pure Propylene glycol butyl ether;

LD_{50} Oral, rat 5009 mg/kg

Skin corrosion/irritation
Not expected to cause any acute skin corrosion or irritation
Serious eye damage/eye irritation
Not expected to cause any acute eye damage or irritation; low level transient eye irritation may be possible following exposure to liquid or vapours
Respiratory or skin sensitisation
May cause allergic skin reaction
Germ cell mutagenicity
No data available
Carcinogenicity
No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available

Potential health effects
Inhalation Excessive inhalation of vapours, aerosols or mists may cause mild, transient respiratory tract irritation.
Ingestion May be harmful if ingested in quantity.
Skin Repeated exposure may cause skin dryness or cracking.
Eyes May cause transient eye irritation

Signs and Symptoms of Exposure
Kidney injury may occur, Dermatitis

12 - Ecological Information

Toxicity

96h LC_{50} (Fish: Fathead minnow)	5600mg/L
96h LC_{50} (Fish: Danio rerio)	100mg/L
28d LC_{50} (Fish: Guppy (Poecilia reticulata))	560-1000mg/L

Persistence and degradability
No data available.

Mobility in soil
No data available.

PBT and vPvB assessment
No data available.

Bioaccumulative potential
No data available

Other adverse effects
No data available

13 -Disposal Considerations

Product
Material is not classified as hazardous waste under the Hazardous Waste Regulations 2005 as amended. Follow suppliers instructions regarding safe methods of disposal. Reuse and recycle material where possible.
Contaminated packaging
Dispose of as unused product.

14 -Transport Information

ADR/RID	Not classified as hazardous for transport
IMDG	Not classified as hazardous for transport
Marine pollutant:	No
IATA	Not classified as hazardous for transport

15 - Regulatory Information

Label Elements

No statutory safety labels are required for this material in accordance with the provisions of EC/1907/2006, EC/1272/2008 or 67/548/EEC as amended

Other Regulations

Health & Safety at Work etc. Act 1974
Control of Substances Hazardous to Health Regulations 2002 (as amended)
Chemicals (Hazard Information and Packaging for Supply) Regulations 2009
Classification, Labelling and Packaging of Substances and Mixtures Regulations 2008 (as amended)
EH40/2005 Workplace Exposure Limits (as amended)
Environmental Protection Act 1990
Hazardous Waste Regulations 2005 (as amended)

16 - Other Information

Text of H-code(s) and R-phrase(s) mentioned in Section 3

H319	Causes serious eye irritation
H315	Causes skin irritation

R36/38	Irritating to eyes and skin

Recommended restrictions on use
Use in accordance with manufacturer's technical instructions.

Revision History
First Issue

Further Information
The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations, management and for people working with or handling these products. This information is believed to be reliable and updated at Revision Date, and represents the best information currently available and known by Tektura PLC. However, Tektura PLC makes no guarantee or warranty, express or implied, with respect to such information and we assume no liability resulting from its use. The information related herein is based on proper handling and anticipated uses and is for the material without chemical additions or alterations. Users should make their own investigations to determine the suitability of the information for their particular purposes. It is the responsibility of the user to undertake a suitable risk assessment/COSHH assessment prior to using this material.