

# UNITED BEAUTY

## Material Safety Data Sheet

Issue Date: 08/05/09

Revision Number: 1

Material/Trade Name: GF21 Structure Gel

### 1. Substance Identification

**Material/Trade Name** : 217000 – GF21 Structure Gel  
**Material Type** : UV-curing coating based on (meth)acrylates  
**Company** : United Beauty Products Ltd  
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Northants  
NN17 4AP  
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### 2. Hazards Identification

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN  
MAY CAUSE SENSITISATION BY SKIN CONTACT  
TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

Do not breathe fumes/vapour

Avoid contact with skin and eyes.

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

After contact with skin, wash immediately with plenty of water.

Wear suitable gloves.

Avoid release to the environment. Refer to special instructions/safety data sheet.

Prolonged or repeated over-exposure may lead to sensitising effects and/or dermatitis in sensitive individuals.

### 3. Composition

Substance		% Wt.	CAS No.	EC No.
Aliphatic urethane acrylate	Xi:R36	30 – 60	proprietary	proprietary
Tripropyleneglycol diacrylate	Xi: R36/37/38 R45 N: R51,53	10 – 25	42978-66-5	256-032-2
2-Hydroxypropyl methacrylate	Xi: R36 R43	10 – 25	923-26-2	213-090-3
Methacrylated acidic compound	Xi: R36/38	1 - 10	proprietary	proprietary

### 4. First Aid Measures

<b>Inhalation:</b>	Remove to fresh air and rest. If not breathing, give artificial respiration. If recovery is not rapid call for prompt medical attention.
<b>Eyes:</b>	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.
<b>Skin:</b>	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 and shoes. Wash with soap/cleanser and rinse with plenty of water. If irritation persists, obtain medical attention
<b>Ingestion:</b>	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

<b>Suitable Extinguishers:</b>	Alcohol resistant foam	Dry powder	Carbon dioxide
<b>Unsuitable Extinguishers:</b>	Direct water jets		
<b>Hazardous Decomposition:</b>	Product may polymerise when exposed to UV light or at high temperature. Polymerisation is highly exothermic and may produce sufficient heat to cause thermal decomposition and/or rupture of the container. Thermal decomposition can lead to the evolution of noxious and irritant fumes. Possible fire hazard - CO, CO <sub>2</sub> , oxides of nitrogen possibly evolved, as well as dense, black, acrid smoke.		
<b>Special Procedures:</b>	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

<b>Exposure Controls:</b>	Ventilate area. Evacuate all personnel. Use barriers to prevent unauthorised entry into contaminated areas. Do not allow spill to enter drains and watercourses.
<b>Personal Protection:</b>	Wear suitable respiratory protection for large spillages and in confined spaces, e.g. EN405 FFA2 or EN140 A2. Wear suitable protective clothing. Wear nitrile or viton gloves. Do not use latex (natural rubber) or PVC gloves, as they absorb acrylates. Wear chemically resistant overalls and boots Wear eye protection such as goggles to BS EN 166 Chemical Grade.
<b>Disposal Considerations:</b>	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

<b>Handling:</b>	Avoid skin and eye contact. Avoid excessive inhalation of vapour - ensure adequate ventilation. Use local extraction if using for prolonged periods. Wear nitrile or viton gloves. Do not use latex (natural rubber) or PVC gloves, as they absorb acrylates. Wear eye protection - safety glasses. If handling large quantities, wear suitable protective clothing. Do not use near heat, sparks or sources of ignition. Do not eat, drink or smoke in the application area. Do not return product that has been exposed to light to the original container.
<b>Storage:</b>	Store in tightly closed, labelled containers. Store in a cool, dry, well-ventilated area out of direct sunlight. Keep away from raised temperatures (>50°C) and sources of ignition. Keep away from oxidising agents and from strong acids/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 / Personal Protective Equipment

**Occupational Exposure Limit:** None assigned

Wear nitrile or viton gloves. Do not use latex (natural rubber) or PVC gloves, as they absorb 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.

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

Use only in well ventilated areas. Use local exhaust ventilation if exposed for long periods. If excessive inhalation in a poorly ventilated area is likely then use a respirator with filter type A.

### 9. Physical and Chemical Properties

<b>Appearance</b>	: Clear, pink, high viscosity gel
<b>Odour</b>	: Characteristic, ester-like
<b>pH</b>	: ~6-7
<b>Boiling point/range</b>	: >100°C
<b>Melting point/range</b>	: Not established
<b>Flash point</b>	: >100°C
<b>Flammability</b>	: Non-Flammable
<b>Explosive properties</b>	: None
<b>Oxidising properties</b>	: None
<b>Vapour pressure</b>	: <1mmHg at 20°C
<b>Relative density</b>	: ~1.13
<b>Solubility in water</b>	: Very low solubility
<b>Solubility in solvents</b>	: Miscible in organic solvents, e.g. acetone
<b>Vapour density</b>	: Not established
<b>Partition coefficient, log Pow</b>	: Not established (but likely to be <3)
<b>Viscosity</b>	: ~120,000cPs
<b>Evaporation rate (Bu Ac = 1)</b>	: Not established

### 10. Stability and Reactivity

<b>Conditions to avoid:</b>	Stable at normal temperatures. Elevated temperatures (>50°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 vital to keep formulatory inhibitors active.
<b>Materials to avoid:</b>	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.
<b>Hazardous decomposition products:</b>	Combustion/exothermic polymerisation will generate oxides of carbon and nitrogen, acrid smoke and irritating fumes.

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### 11. Toxicological Information

<b>Acute toxicity:</b>	<u>Oral</u> – Expected to be very low - LD50(rat) is likely to be in the range 3,000-10,000mg/kg. Ingestion may cause nausea, weakness and CNS depression  <u>Inhalation</u> – Expected to be low.  <u>Skin</u> – Expected to be low.
<b>Corrosivity/irritation:</b>	<u>Eyes</u> – Causes irritation. Conjunctival irritation and temporary corneal injury possible. Profuse eye watering and redness.  <u>Skin</u> – Causes irritation and redness at site of contact. Prolonged or repeated contact may lead to itching, soreness, blistering, dermatitis, etc.  <u>Respiratory Tract</u> – Causes irritation – also of mucous membranes, nose and throat.
<b>Sensitisation:</b>	Skin sensitisation is possible.
<b>Repeated-dose toxicity:</b>	Not expected – HPMA produces no significant effects by inhalation on rats (90ppm) for 25 days.
<b>Mutagenicity:</b>	Not expected – TPGDA gives negative test results.
<b>Carcinogenicity:</b>	Not tested, but not expected.
<b>Reproductive Toxicity:</b>	Not tested, but not expected.

### 12. Ecological Information

Product is classified as Dangerous for the Environment by the Conventional Method as detailed in Schedule 3, Parts I and III of CHIP3 Regulations - *R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment*, which is due to tripropylene glycol diacrylate.

<b>Ecotoxicity:</b>	Also for reference, HPMA has LC50 (48h, golden ide) = 493mg/l; TPGDA has LC50(96h, leuciscue idus) of >4.5, <10mg/l.
<b>Bioaccumulative potential:</b>	Expected to be relatively low. No significant accumulation expected due to predicted low LogPow value (likely to be <3).
<b>Persistence:</b>	Considered to be slowly biodegradable – TPGDA gives a theoretical biodegradability result of 40-50% (OECD 301B).
<b>Mobility:</b>	Considered to be low due to relatively low water solubility.

### 13. Disposable Considerations

Do not discharge into drains or watercourses.

Dispose of product through properly licensed contractors under national and local legislation. Product residues can be cleaned out of containers. Dispose of in accordance with the Special Waste Regulations 1996.

Hardened product can be disposed of as chemical waste by incineration or licensed contractors. Clean containers can be disposed of by landfill or incineration or possibly recycled.

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### 14. Transport Information

<b>UN No:</b>	3082	<b>Packing Group:</b>	III
<b>IMDG:</b>	Class 9	<b>Packing Group:</b>	III
<b>IATA/ICAO:</b>	Class 9	<b>Flash Point:</b>	>100°C
<b>ADR/RID:</b>	Class 9	Environmentally hazardous substances, liquid, n.o.s. (contains tripropyleneglycol diacrylate).	
<b>Proper Shipping Name:</b>			

### 15. Regulatory Information

#### Symbol(s) & Indication(s) of Danger



**CHIP3 Label Phrases** Contains tripropyleneglycol diacrylate and 2-hydroxypropyl methacrylate.

#### Risk & Safety Phrases

R36/37/38	Irritating to eyes, respiratory system and skin
R43	May cause sensitisation by skin contact
R51/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
S23	Do not breathe fumes/vapour
S24/25	Avoid contact with skin and eyes.
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.
S37	Wear suitable gloves.
S61	Avoid release to the environment. Refer to special instructions/safety data sheet.

#### Other Relevant Regulations and Publications

Health & Safety at Work etc. Act 1974	Control of Substances Hazardous to Health Regulations 1994
COSHH Essentials	EH40/ series – Occupational Exposure Limits
Environmental Protection Act 1990	Special Waste Regulations 1996
The UV Protocol – Radtech Europe.	

### 16. Other Information

The \* symbol in a section denotes that there has been a change in information from the previous version of this safety data sheet.

Risk phrases referred to in section 2:-

R10	Flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R35	Causes severe burns
R36/37/38	Irritating to eyes, respiratory system and skin
R43	May cause sensitisation by skin contact
R50	Very toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This Safety Data Sheet is compiled with reference to The Chemicals (Hazard Information and Packaging for supply) Regulations 2002 (CHIP3), which implement the Council Directives 67/548/EC (The Dangerous Substances Directive) and 99/45/EC (The Dangerous Preparations Directive), and subsequent amending regulations, up to and including 2001/59/EC, which implements the 28<sup>th</sup> ATP of 67/548/EEC; and 2001/60/EC, which implements the 1<sup>st</sup> ATP of 99/45/EC; and also the Safety Data Sheet Directive 91/155/EC, as amended for the 2<sup>nd</sup> time by 2001/58/EC.

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The information contained in this safety data sheet was obtained from a variety of sources and is believed to be accurate and current at the stated issue date. United Beauty Products Ltd. and/or its agents cannot accept any liability for the use of information contained in this data sheet or for the use, application or processing of the product described in this data sheet. Users should note the possibility of hazards occurring due to improper use of the product.

This Safety Data Sheet is compiled with reference to regulation 1907/2006/EC and amendments.