

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**CHEMICAL NAME:** Tripropylene Glycol Diacrylate/Methacrylic Acid Blend

**PRODUCT NAME:** SHIMMER UV Gel

**PRODUCT USE:** Organic Process Chemical

**MANUFACTURER:** Star Nail International  
**ADDRESS:** 29120 AVENUE PAINE  
 VALENCIA, CA 91355

**24 HR. EMERGENCY TELEPHONE:** CHEMTEL: 813-248-0573 OR 1-800-255-3924

**PREPARATION/UPDATE DATE:** 8/15/08  
**PRINT DATE:** 1/25/12  
**MSDS ID:** M31-02

## SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER:	WT/WT %
01	Urethane Acrylate	NA	60.0-100.0
02	Methacrylic acid	79-41-4	0.0-20.0
03	2-Hydroxyethyl Methacrylate	868-77-9	0.0-10.0
04	Photoinitiator	NA	0.0-10.0

ITEM	ACGIH		OSHA		Company Recommendation	SKIN
	TLV-TWA	TLV-STEL	PEL TWA	PEL CEILING		
01	NE	NE	NE	NE	NE	NE
02	20 ppm	NE	20 ppm	NE	20 ppm	NE
03	NE	NE	NE	NE	6 mg/m <sup>3</sup>	NE
04	NE	NE	NE	NE	6 mg/m <sup>3</sup>	NE

Note this material contains an inhibitor (HQ, MEHQ, etc) at <1%. The type and amount meet product specifications. Contact manufacturer for exact concentration and details on inhibitor level maintenance.

See Section 16 for Abbreviations.

### SECTION 3 - HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW:

##### WARNING:

Physical Hazards:		Unstable/Reactive upon depletion of inhibitor. <b>Check inhibitor levels periodically.</b>
For Mixture:		
Acute:	Eyes:	Material can cause corrosion to eyes and permanent eye injury.
	Skin:	Material can cause corrosion to skin. Harmful if absorbed through the skin.
	Inhalation:	Inhalation of vapor or mist can cause irritation of nose, throat, and lungs. May cause burns resulting in permanent damage.
	Ingestion:	May be harmful if swallowed. May cause severe and permanent damage to throat, mouth and stomach.
Chronic:		Prolonged or repeated overexposure at near lethal concentrations can cause kidney damage liver damage.

#### CARCINOGENICITY:

Hydroxyethyl Methacrylate may contain trace amounts of substances known to the state of California to cause cancer and/or reproductive toxicity. None of the other components of this material are listed by IARC or ACGIH as carcinogens.

#### PRIMARY ROUTES OF ENTRY:

Inhalation, Skin, or Eyes.

### SECTION 4 - FIRST AID MEASURES

#### EMERGENCY AND FIRST AID PROCEDURES:

EYES:	If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.
INGESTION:	If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Get medical attention immediately. <i>NOTE: This is a corrosive material. Do not administer any other first aid before obtaining the advice of a physician.</i>
INHALATION:	Remove to fresh air. Seek immediate medical attention.
SKIN:	If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the effected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.
CLOTHING:	Remove contaminated clothing, wash thoroughly before reuse.
TREATMENT:	Treat symptoms conventionally, after thorough decontamination.

*Notes to physician: This material will have corrosive effects in which case it may not be advisable to induce vomiting. Acute effects can include mucosal damage and severe laryngeal edema associated with corrosive agents.*

## SECTION 5 - FIRE FIGHTING MEASURES

*For MAA:*

<b>FLASH POINT:</b>	152.6° F, 67 ° C
<b>FLAMMABLE LIMIT, AIR VOL% LOWER:</b>	NE
<b>UPPER:</b>	NE
<b>AUTOIGNITION TEMPERATURE:</b>	NE
<b>EXTINGUISHER METHOD:</b>	Chemical foam, carbon dioxide, dry chemical.
<b>FIRE AND EXPLOSION HAZARDS:</b>	High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerizing reaction generating heat/pressure. Closed containers may rupture or explode during a runaway polymerization. Use a water spray or fog to reduce or direct vapors. Water may not be effective in actually extinguishing a fire involving this product.
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	Explosion hazard. Do not enter fire area without proper protection. Fight fire from a safe location. Heat/impurities may cause pressure to build and/or rupture closed containers, spreading fire, increasing risk of burns/injuries. Structural firefighters must wear SCBAs and full protective equipment.
<b>SENSITIVE TO MECHANICAL IMPACT:</b>	No.
<b>SENSITIVE TO STATIC DISCHARGE:</b>	No.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**ACCIDENTAL RELEASE:**

Before cleaning any spill or leak, individuals involved must wear appropriate Personal Protective Equipment (e.g., goggles, gloves). Deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g. sand or earth). Maximize ventilation (open doors and windows) and secure all sources of ignition. Place into appropriate closed container(s) for disposal in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

## SECTION 7- HANDLING AND STORAGE

**PRECAUTIONS FOR HANDLING:**

Use local explosion-proof ventilation with a minimum capture velocity of 100 ft/min (30 m/min) at point of material release. Refer to Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Hygienist. Observe precautions found on label. Do NOT use localized heat source such as band heaters to heat/melt product. Do NOT use steam. Thaw frozen drums by placing them in a heated room up to 40°C/104°F for 48 hours.

**PRECAUTIONS FOR STORAGE:**

Store containers in a cool, dry location, away from direct sunlight, heat, sparks, flame, other light sources, or sources of intense heat. Keep container closed after each use. Ground and bond all containers when transferring. **Check inhibitor levels periodically**, adding to the bulk material if needed. Maintain at a minimum, the original headspace in the product container and do not blanket or mix with oxygen-free gas as it renders the product ineffective.

**SECTION 7- HANDLING AND STORAGE CONTINUED**

- PRECAUTIONS FOR STORAGE (CONT):** Product freezes at 15°C/59°F. Improper thawing can result in violent polymerization. DO NOT remove any material if stock is frozen or partially frozen. Mix during and after thawing to properly distribute inhibitor. Do not allow the temperature of this material to fall below the freezing point. Limit indoor storage to approved areas equipped with automatic sprinklers. Minor deviations (7C/13F) above the recommended temperature (see below) are acceptable for short periods of time (one week) for material in transit. Store material in containers made of stainless steel, glass, aluminum, or polyethylene. **Storage at temperatures between 18°- 40°C/64°-104°F.**
- INDUSTRIAL HYGIENE PRACTICES:** This material is **corrosive**. This material is a potential skin sensitizer. Avoid prolonged contact with the product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product.

**SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION**

- VENTILATION:** Refer to Section 7 regarding the ventilation requirements for working with this product. Use explosion-proof local exhaust at processing equipment, including buffers, sanders, grinders and polishers. High temperature processing equipment should be well ventilated.
- RESPIRATORY PROTECTION:** A respirator should be worn whenever workplace conditions warrant a respirators use. None required if airborne concentrations are maintained below the exposure limit listed in Section 2. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134 or other appropriate governing standard.
- EYE PROTECTION:** Depending on the use of this product, splash or safety glasses may be worn. If necessary, refer to U.S. OSHA 29 CFR §1910.133, or other appropriate governing standard. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.
- PROTECTIVE GLOVES:** If anticipated that prolonged & repeated skin contact will occur during use of this product, wear chemical resistant gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, or other appropriate governing standards.
- OTHER PROTECTIVE EQUIPMENT:** No special body protection is required under typical circumstances of use and handling. If necessary, refer to appropriate governing standards. An eyewash station and a safety shower are recommended.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE:</b>	Pigmented thick liquid.
<b>ODOR:</b>	Acrylate
<b>pH:</b>	ND
<b>ODOR THRESHOLD:</b>	ND
<b>BOILING POINT:</b>	ND
<b>MELTING POINT:</b>	ND
<b>VISCOSITY:</b>	ND
<b>SPECIFIC GRAVITY (H<sub>2</sub>O=1):</b>	NE
<b>VAPOR PRESSURE:</b>	NE
<b>PERCENT VOLATILE W/W%:</b>	ND
<b>VAPOR DENSITY (AIR=1):</b>	ND
<b>VOC CONTENT BY WEIGHT:</b>	NA
<b>SOLUBILITY IN WATER:</b>	ND
<b>COEFFICIENT OF WATER/OIL DISTRIBUTION:</b>	ND

## SECTION 10 - STABILITY AND REACTIVITY

<b>CONDITIONS TO AVOID:</b>	High temperatures, localized heat sources (example drum or band heaters) oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing.
<b>INCOMPATIBILITY (MATERIALS TO AVOID):</b>	Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers. Material has strong solvent properties and can soften paint and rubber.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Mainly Oxides of Carbon when burned.
<b>HAZARDOUS POLYMERIZATION:</b>	MAY OCCUR: X      WILL NOT OCCUR:
<b>STABILITY:</b>	Unstable/Reactive upon depletion of inhibitor.

## SECTION 11- TOXICOLOGICAL PROPERTIES

**TARGET ORGANS:**

For Mixture: None Listed.

**TOXICITY DATA:**

This product has NOT been tested on animals to obtain toxicology data. There is toxicology data for the components of the product, which is found in scientific literature. Some of this data is presented below.

For Methacrylic Acid:

Acute oral toxicity, rat	LD <sub>50</sub>	2,210 mg/kg
Acute inhalation toxicity, rat	LC <sub>50</sub>	7.1 mg/l, 4H
Acute dermal toxicity, rabbit	LD <sub>50</sub>	>2,000 mg/kg
Skin irritation, rabbit		Corrosive
Eye irritation, rabbit		Corrosive
Sensitization		NOT a contact sensitizer

For 2-Hydroxyethyl Methacrylate:

Oral Mouse	LD <sub>50</sub> :	3275 mg/kg.
Oral Rat	LD <sub>50</sub> :	5050 mg/kg.
Oral Guinea Pig	LD <sub>50</sub> :	4680mg/kg.
Intraperitoneal mouse	LD <sub>50</sub> :	497 mg/kg.
Intraperitoneal Rat	LD <sub>50</sub> :	1250 mg/kg.

## SECTION 11- TOXICOLOGICAL PROPERTIES CONTINUED

**MUTAGENICITY DATA:** This product is not reported to produce mutagenic effects in humans.

**REPRODUCTIVE TOXICITY DATA:**

Embryotoxicity: This product is not reported to produce embryotoxic effects in humans.  
 Teratogenicity: This product is not reported to cause teratogenic effects in humans.  
 Reproductive Toxicity: This product is not reported to cause reproductive effects in humans.

## SECTION 12 - ECOLOGICAL INFORMATION

**AQUATIC TOXICITY:**

There is no specific data available for this product; however, very large releases of this product may be harmful or fatal to overexposed aquatic life. There is data for the components of the product, which is found in scientific literature. Some of this data is presented below.

For Methacrylic Acid:

Rainbow trout	LC <sub>50</sub>	85 mg/l, 96H
Algae	EC <sub>50</sub>	0.6 mg/l, 96H
Daphnia magna	EC <sub>50</sub>	>130 mg/l, 48H

**ENVIRONMENTAL FATE:**

For Methacrylic Acid: Elimination information (persistence and degradability)  
 Biodegradability: aerobic  
 86 %  
 Stable to hydrolysis at pH 3,7, 11.  
 Readily biodegradable, according to appropriate OECD test.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Contaminated product/soil/water may be RCRA/OSHA hazardous waste due to potential for internal heat generation (40 CFR 261 and 29 CFR 1910). After addition of excess inhibitor, dispose waste material in accordance with Federal, State, and Local regulations.

**DISPOSAL OF EMPTY CONTAINERS:** Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards due to residual material associated with empty containers. Dispose of all empty containers properly in accordance with Federal, State and Local regulations.

## SECTION 14 - TRANSPORTATION

<b>DOT/UN SHIPPING NAME:</b>	METHACRYLIC ACID, STABILIZED, SOLUTION
<b>DOT/UN CLASS:</b>	8
<b>NA/UN NUMBER:</b>	UN 2531
<b>PACKING GROUP:</b>	II
<b>LABEL:</b>	Corrosive
<b>IMDG CLASS:</b>	8
<b>IMDG PG:</b>	II
<b>DOT RQ:</b>	NA

## SECTION 15 - REGULATORY INFORMATION

**US:**

TSCA Inventory Status: The components of this product are listed or are excluded from listing on the TSCA Inventory.

SARA Section 302: There are not any specific Threshold Planning Quantities for the components of this product.

SARA Section 311/312: Immediate (Acute), Delayed (Chronic)

SARA Section 313: There are not any reporting requirements for this product.

CERCLA Reportable Quantity (RQ): NA

State Regulatory Information: This product may contain components that are covered under specific state criteria.

**CANADA:**

DSL/NDSL: The components of this product are listed on the DSL/NDSL.

WHMIS Hazard Class: B3, D1B, E, F

Other: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. None of the components of this product are listed on the Priorities Substances List.

**EUROPE:**

EINECS: The components of this product are listed or are excluded from listing on EINECS.

**HAZARD SYMBOLS:**

C – Corrosive  
Xi - Irritant

**RISK STATEMENTS:**

R34 - Causes burns.  
R36/37/38 – Irritating to eyes, respiratory system and skin.  
R43 - May cause sensitization by skin contact

**SAFETY STATEMENTS:**

S15 - Keep away from heat.  
S23 - Do not breathe spray.  
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.  
S37/39 - Wear suitable gloves and eye/face protection.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## SECTION 16 - OTHER INFORMATION

**HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:**

HEALTH:	3
FLAMMABILITY:	2
REACTIVITY:	2
PERSONAL PROTECTIVE EQUIPMENT:	Gloves and Safety Glasses or Chemical Splash Goggles.

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:**

HEALTH:	3
FLAMMABILITY:	2
REACTIVITY:	2

## SECTION 16 - OTHER INFORMATION - CONTINUED

**ABBREVIATIONS:**

NA	Not Applicable	ND	Not Determined
NE	Not Established		
ppm	parts per million	G	Gallon
mg	Milligram	L	Liter
gm	Gram	mol	Mole
kg	Kilogram	μ	Micro
mm	Millimeter	p	Pico
Pa	Pascals	c	cento
LC	Lethal Concentration	LD	Lethal Dose
TC	Toxic Concentration	TD	Toxic Dose
BOD	Biological Oxygen Demand	COD	Chemical Oxygen Demand
Lo	Lowest	ThOD	Theoretical Oxygen Demand
TLm	Threshold Limit	IC	Inhibitory Concentration
DOC	Dissolved Organic Carbon		
H	Hours	M	Months
D	Days	Y	Years
W	Weeks		

ACGIH American Conference of Governmental Industrial Hygienist  
 CPR Controlled Product's Regulation  
 DSL Canadian Domestic Substances List  
 NDSL Canadian Non-domestic Substance List  
 IARC International Agency for Research for Cancer  
 NOEL No Observed Effect Level  
 NOAEL No Observed Adverse Effect Level  
 OSHA Occupational Safety and Health Administration  
 PEL Permissible Exposure Limit  
 TLV Threshold Limit Value

*THIS MATERIAL SAFETY DATA SHEET IS PREPARED IN COMPLIANCE WITH FEDERAL REGULATIONS (29 CFR 1910.1200), AND CANADIAN WHMIS REGULATIONS, ANY APPLICABLE STATE AND LOCAL REGULATIONS SHOULD BE CONSULTED. THE ABOVE INFORMATION MAY BE BASED IN PART ON INFORMATION PROVIDED BY COMPONENT SUPPLIERS AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OF THESE DATA, THE RESULTS TO BE OBTAINED FROM THE USE OF THE MATERIAL, OR THE HAZARDS CONNECTED WITH SUCH USE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR, AND SINCE DATA MADE AVAILABLE SUBSEQUENT TO THE DATE HEREOF MAY SUGGEST MODIFICATION OF THE INFORMATION, WE ASSUME NO RESPONSIBILITY FOR THE RESULT OF ITS USE. THIS INFORMATION AND MATERIAL IS FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING IT SHALL MAKE HIS/HER OWN DETERMINATION AS TO THE SUITABILITY OF THE MATERIAL FOR HIS/HER PARTICULAR PURPOSE AND ON THE CONDITION THAT HE/SHE ASSUME THE RISK OF HIS/HER USE THEREOF.*