

# SAFETY DATA SHEET


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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING	
<b>1.1. Product identifier</b>	
Item name: <b>ForPro Expert Advanced Formula Monomer</b>	
<b>1.2. Relevant identified uses of the substance or mixture and uses advised against</b>	
Liquid (monomer) for acrylic nail system, cosmetic.	
<b>1.3. Details of the supplier of the safety data sheet</b>	
Distributor:	TNG Worldwide, Inc. 29683 W K Smith Dr New Hudson, MI 48165 (248) 347-7700  <a href="http://www.tngworldwide.com">www.tngworldwide.com</a>
<b>1.4. Emergency telephone number</b>	
In the US&Canada: (800)424-9300; outside of the US&Canada: +1 (703) 741-5941, collect calls accepted.	

## 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture	
<b>GHS Classification</b>	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3 H335
Important adverse physicochemical, human health and environmental effects:	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
2.2. Label elements	
GHS Label(s)	 <b>DANGER!</b>  H225 Highly flammable liquid and vapor. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.  P101 If medical advice is needed, have product container or label at hand. P280 Wear protective gloves/protective clothing/eye protection/face protection.

<p>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.  P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  P312 Call a POISON CENTER or doctor/physician if you feel unwell.  P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.</p>	
<b>2.3. Other hazards</b>	
	Product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

See section 11 for more detailed information on health effects and symptoms.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>3.1. Substances</b>	No relevant.
<b>3.2. Mixtures</b>	Ethyl Methacrylate in a blend of other organic substances.

Ingredient name (INCI)	CAS Numbers:	EINECS:	Conc.%	GHS Classification	Type
ETHYL METHACRYLATE	97-63-2	202-597-5	75-100%	FLAM. LIQ. 2 H225 Skin IRRIT. 2 H315 EYE IRRIT. 2 H319 Skin Sens. 1 H317 STOT SE 3 H335 (RESPIRATORY TRACT IRRITATION)	[1] [2]
HEMA (2-Hydroxyethyl Methacrylate)	868-77-9	212-782-2	10-25%	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319	[1]
GLYCOL HEMA-METHACRYLATE (Ethylene Glycol Dimethacrylate Esters)	97-90-5	202-617-2	5-10%	Skin Sens. 1 H317 STOT SE 3 H335 (RESPIRATORY TRACT IRRITATION)	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

See section 16 for the full text of the R and H phrases declared above.

Occupational exposure limits, if available, are listed in section 8.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

### 4. FIRST AID MEASURES

<b>4.1. Description of first aid measures</b>	
General advice:	Remove contaminated clothing.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Remove contaminated clothing and wash before reuse. Remove and destroy contaminated shoes. Flush with plenty of water. Obtain medical attention if irritation persists.
Eye contact:	Immediately wash the eyes with plenty of water for at least 15 min holding the eye open. Obtain medical attention urgently.
Ingestion:	Do not INDUCE VOMITING. Rinse mouth with water. Get medical attention IMMEDIATELY.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	
Inhalation:	May cause nose and throat irritation. May affect the brain or nervous system, causing dizziness, headache or nausea. Harmful if inhaled. Narcosis, loss of coordination, vomiting, difficulty with speech, reduced visibility, fatigue, cough, and unconsciousness.
Skin contact:	May causes skin irritation. Swelling and redness of skin, dermatitis, drowsiness

Eye contact:	Cause eye irritation. conjunctivitis, lacrimation, redness and swelling of eyes,
Ingestion:	Harmful if swallowed, abdominal pain
Repeated overexposure	Lung damage, liver abnormalities, kidney damage, central nervous system damage, blood effects.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	
Specific treatments:	Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

See section 11 for more detailed information on health effects and symptoms.

## 5. FIRE-FIGHTING MEASURES

<b>5.1. Extinguishing media</b>	
Suitable extinguishing media:	Carbon dioxide, foam, powder.
Unsuitable extinguishing media:	Water.
<b>5.2. Special hazards arising from the substance or mixture</b>	
	Water may be ineffective in fighting fire. If water is used to cool closed containers to prevent pressure build-up, fog nozzles are preferred. Full protective equipment, including self-contained breathing apparatus is needed to protect fire-fighters from exposure to coating's hazardous ingredients and hazardous decomposition products.
<b>5.3. Advice for firefighters</b>	
	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. During emergency conditions, overexposure to decomposition products may cause a health hazard; symptoms may not be immediately apparent. Obtain medical attention.

## 6. ACCIDENTAL RELEASE MEASURES

<b>6.1. Personal precautions, protective equipment and emergency procedures</b>	
	Avoid contact with skin and eyes. Wear protective equipment. Keep away from heat and sources of ignition. Provide adequate ventilation
<b>6.2. Environmental precautions</b>	
	Do not empty into drains / surface water / ground water. Prevent further leakage or spillage.
<b>6.3. Methods and material for containment and cleaning up</b>	
	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Dispose of in accordance with local regulations.
<b>6.4. Reference to other sections</b>	
	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## 7. HANDLING AND STORAGE





The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

<b>7.1. Precautions for safe handling</b>	
Protective measures:	Avoid inhalation, skin and eye contact.
Advice on general occupational hygiene:	Good industrial hygiene practices should be observed. Provide sufficient air exchange and/or exhaust in work rooms. Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working. Take off all contaminated clothing immediately. See also Section 8 for additional information on hygiene measures.
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	
Storage:	Store in well-ventilated area. Keep containers (solvent resistant) closed when not in use. Store away from ignition sources. All equipment should be grounded. Avoid strong oxidizing agents, store in a clean, dry area. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready

	for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Empty container may retain product residues (vapor or liquid).
<b>7.3. Specific end use(s)</b>	
Industrial sector specific solutions:	<b>Product is for professional use only.</b>

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

<b>8.1 Control parameters</b>	
Occupational exposure limits	Limit values are laid down throughout the EU, but each Member State establishes its own national OELs, often going beyond EU legislation. OELs are set by competent national authorities and other relevant institutions. <b>United Kingdom (HSE, 2011):</b> <b>ETHYL METHACRYLATE</b> Long-term exposure limit, 8-hr TWA reference period: 50 ppm / 208 mg.m <sup>-3</sup> Short-term exposure limit, 15 minute reference period: 100 ppm/ 416 mg.m <sup>-3</sup>
Recommended monitoring Procedures:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate agencies for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
<b>8.2 Manufacturer: Exposure controls</b>	
Appropriate engineering Controls:	Ensure good ventilation/extraction.
<b>Individual protection measures:</b>	
Hygiene measures:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
Respiratory protection	 Ensure adequate ventilation. An approved mask or respirator fitted with an organic vapor cartridge should be worn if the product is used in a poorly ventilated area. Filter type: A
Eye/face protection:	 Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Skin protection:	  Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): nitrile rubber (NBR; >= 0.4 mm thickness). Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): nitrile rubber (NBR; >= 0.4 mm thickness). This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Wear suitable protective clothing.
<b>Environmental exposure controls:</b>	
	According to available technology.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>9.1 Information on basic physical and chemical properties</b>	
Appearance	
Physical state	Liquid
Color	Characteristic.
Odor	Characteristic.
Odor threshold	Not available.
pH at 25 °C	Not applicable.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Point: 118-119°C (Ethyl Methacrylate)
Flash point	Closed cup: 20°C (68°F)
Evaporation rate	1.5 (butyl acetate = 1)
Flammability (solid, gas)	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Upper/lower flammability or explosive limits	Lower: 2% Upper: 2.5%
Vapor pressure	Not available.
Vapor density	3.9 [Air = 1]
Specific gravity	Not available.
Solubility(ies)	Insoluble in water. Soluble in solvent.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	392.8°C (739°F)
Decomposition temperature	Not available.
Viscosity	Not available.
Evaporation Rate	Slower than ether
Explosive properties	Not available.
Oxidizing properties	Not available
<b>9.2. Other information</b>	
Impurity	Not available

**10. STABILITY AND REACTIVITY**

<b>10.1. Reactivity</b>	
	No hazardous reactions if stored and handled as prescribed/indicated.
<b>10.2. Chemical stability</b>	
	Stable under recommended storage conditions.
<b>10.3. Possibility of hazardous reactions</b>	
	Stable under recommended storage conditions.
<b>10.4. Conditions to avoid</b>	
	AVOID Heat, sparks, open flame. Sun-Light, UV-Light, un-clean conditions to avoid during storage.
<b>10.5. Incompatible materials</b>	
	None if used properly.
<b>10.6. Hazardous decomposition products</b>	
	Methane, oxides of nitrogen. Carboxylic acids, various hydrocarbons, oxides of carbon, aldehydes, hydrogen cyanide, acids.

**11. TOXICOLOGICAL INFORMATION**

<b>11.1. Information on toxicological effects</b>				
<b>Product:</b>				
<b>Ingredients:</b>				
Acute toxicity:	Result	Species	Dose	Exposure
Ethyl Methacrylate	LD50 Oral	Rat	13.424 mg/kg bw	
	LC50 inhalation	Rat	8300 ppm	4 h

	LD50 Dermal	Not available		
Ethylene Glycol Dimethacrylate	LD50 Oral	Rat	3.300 mg/kg bw	
	LC50 inhalation	Not available		
	LD50 Dermal	Not available		
2-Hydroxyethyl Methacrylate	LD50 Oral	Rat	LD50=5564 mg/kg bw	24 h
	LC50 inhalation	Rat	No data available	
	LD50 Dermal	Rabbit	LD50 >5000 mg/kg /bw	
<b>Eye irritation:</b>				
Ethyl Methacrylate	No data available			
Ethylene Glycol Dimethacrylate	Rabbit – No eye irritation (OECD Test Guideline 405)			
2-Hydroxyethyl Methacrylate	Slightly irritant.			
<b>Skin irritation/ corrosion:</b>				
Ethyl Methacrylate	No data available			
Ethylene Glycol Dimethacrylate	Rabbit – No skin irritation (Draize Test)			
2-Hydroxyethyl Methacrylate	Slightly irritant.			
<b>Sensitisation:</b>				
Ethyl Methacrylate	No data available			
Ethylene Glycol Dimethacrylate	No data available.			
2-Hydroxyethyl Methacrylate	Epidemiological data on human sensitivity.			
<b>Repeated dose toxicity:</b>				
Ethyl Methacrylate	NOAEC, inhal.	Rat	310 mg/kg (RTECS: OZ4550000)	
Ethylene Glycol Dimethacrylate	No data available.			
2-Hydroxyethyl Methacrylate	NOAEL	Rat	oral: <30 mg/kg/day	
<b>Carcinogenicity:</b>				
No known effect according to our database.				
<b>Mutagenicity:</b>				
No known effect according to our database.				
<b>Toxicity for reproduction:</b>				
No known effect according to our database.				
<b>Potential acute health effects</b>				
Eye contact:	Irritation, conjunctivitis.			
Inhalation:	Irritation, coughing, shortness of breath, narcotic effect.			
Skin contact:	Redness, inflammation. Rash, Urticaria.			
Ingestion:	Gastrointestinal symptoms, such as nausea, vomiting, abdominal pain, and diarrhea could develop.			
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>				
Eye contact:	No specific data.			
Inhalation:	No specific data.			
Skin contact:	No specific data.			
Ingestion:	No specific data.			
<b>Delayed and immediate effects and also chronic effects from short and long term exposure</b>				
<b>Short term exposure:</b>				
Potential immediate effects:	Not available.			
Potential delayed effects:	Not available.			
<b>Long term exposure:</b>				
Potential immediate effects:	Not available.			
Potential delayed effects:	Not available.			
<b>Potential chronic health effects:</b>				
Not available.				
<b>Conclusion/Summary</b>				
General	No known significant effects or critical hazards.			
Carcinogenicity	No known significant effects or critical hazards.			
Mutagenicity	No known significant effects or critical hazards.			
Teratogenicity	No known significant effects or critical hazards.			
Developmental effects	No known significant effects or critical hazards.			
Fertility effects	No known significant effects or critical hazards.			
<b>11.2. Other information</b>				
Not available.				

## 12. ECOLOGICAL INFORMATION

<b>12.1. Toxicity</b>						
<b>Aquatic toxicity</b>						
Ethyl Methacrylate	Salmo gairdneri	freshwater	96 h	LC50	100 mg/L	
Ethylene Glycol Dimethacrylate	Pimephales promelas	freshwater	96 h	LC50	15.95 mg/L	

2-Hydroxyethyl Methacrylate	Oryzias latipes	freshwater	96 h	LC50	>100 mg/L.
<b>12.2. Persistence and degradability</b>					
Readily biodegradable.					
<b>12.3. Bioaccumulative potential</b>					
Low.					
<b>12.4. Mobility in soil</b>					
Not available					
<b>12.5. Results of PBT and vPvB assessment</b>					
Regarding all available data on biotic and abiotic degradation, bioaccumulation and toxicity it can be stated that the substance does not fulfil the PBT criteria (not PBT) and not the vPvB criteria (not vPvB).					
<b>12.6. Other adverse effects</b>					
No known significant effects or critical hazards.					

### 13. DISPOSAL CONSIDERATIONS





The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

<b>13.1. Waste treatment methods</b>	
<b>Product:</b>	
Methods of disposal:	Waste must be disposed of in accordance with federal, state and local environmental control regulations. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Hazardous waste:	Within the present knowledge of the supplier, this product is regarded as hazardous waste.
European waste catalogue (EWC):	200127* paint, inks, adhesives and resins containing dangerous substances
<b>Packaging:</b>	
Methods of disposal:	The generation of waste should be avoided or minimized wherever possible. Packaging: IBC container, plastic drum. Waste packaging should be recycled.
Special precautions:	This material and its container must be disposed of in a safe way.

### 14. TRANSPORT INFORMATION

This preparation is not classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

**International transport regulations:**

	DOT/ADR/RID	ADN	IMDG	IATA
14.1. UN number	UN1993	UN1993	UN1993	UN1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S (ETHYL METHACRYLATE)			
14.3. Transport hazard class(es)				
14.4. Packing group	II	II	II	II
14.5. Environmental hazards	No	No	No	No
14.6. Special precautions for user	Flash point: 20 °C			
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	-			

**15. REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Regulation (EC) No. 1907/2006 (REACH):**

Annex XIV - List of substances subject to authorization:	Substances of very high concern: None of the components are listed.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:	Not applicable.
<b>15.2. Chemical safety assessment</b>	
Chemical Safety Assessment following regulation 1907/2006/EC:	A Chemical Safety Assessment has not been carried out.

**16. OTHER INFORMATION****Abbreviations and acronyms:**

Full text of abbreviations	DOT-Department of Transportation CLP: Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008] ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road RID: International Rule for Transport of Dangerous Substances by Railway IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association CAS: Chemical Abstracts Service EINECS: European Inventory of Existing Commercial chemical Substances LC50: Median lethal concentration LD50: Median lethal dose REACH: Registration, Evaluation and Authorisation of Chemicals PBT: Persistent, bio-accumulative and toxic vPvB: Very persistent, very bio-accumulative
Full text of classifications and H statements [CLP/GHS]:	Eye Irrit. 2, Serious eye damage/eye irritation, Hazard Category 2; H319 Causes serious eye irritation. Flam. Liq. 2, Flammable liquids, Hazard Category 2; H225 Highly flammable liquid and vapour. STOT SE 3 Specific target organ toxicity — Single exposure, Hazard Category 3, Narcosis H336 May cause drowsiness or dizziness EUH066 <i>Repeated exposure may cause skin dryness or cracking</i>
Classification system	<b>Classification for health effects:</b> conventional (calculation) method is used. Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3, H336 <b>Classification for physico-chemical effects:</b> FLAM. LIQ. 2 H225 <b>Classification for environmental effects:</b> conventional (calculation) method is used. Not applicable.
<b>Training advice:</b>	
	In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.
<b>Used literature:</b>	
	European Chemical Agency's homepage ( <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> ). Safety data sheets of individual components.
<b>DISCLAIMER OF LIABILITY:</b>	

	<p>The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or method of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.</p>
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**END OF SAFETY DATA SHEET**