

Material Safety Data Sheet

R-1 ACRYLIC LIQUID

Section 1 - Identification of the Substance/Preparation and of the Company/Undertaking

Product Name: R-1 ACRYLIC LIQUID

MSDS Approval Date: 1/10/2001

Chemical Name: N/A

MSDS Prepared by: BSQ

Family: Monomer

Manufacturer: ABC International Sp. z o.o.

Product Use: Nail Liquid

ul. Odolańska 10 Warszawa 02-560

Emergency Phone Numbers: (0048)42 631 47 24

Information Contacts: (0048)228800455

Product #: various

Section 2 - Composition/Information on Ingredients

Chemical Identity	CAS Numbers	EINECS#	INCI Name	Exposure OSHA TWA/STEL	Limits ACGIH TWA/STEL	Carcinogen IARC/NTP/OSHA	%
Ethyl Methacrylate	97-63-2	202-597-5	Ethyl methacrylate	N/E	N/E	Not Listed	75-80
Hydroxy propyl methacrylate	27813-02-1	248-666-3	Hydroxypropyl Methacrylate	N/E	N/E	Not Listed	10-15
Tetraethylene glycol dimethacrylate	109-17-1	203-653-1	PEG-4 Dimethacrylate	N/E	N/E	Not Listed	5-10
N,N-Dimethyl-p-toluidine	99-97-8	202-805-4	Dimethyltolylamine	N/E	N/E	Not Listed	0-1
D&C Violet #2	81-48-1	201-353-5	CI 60725	N/E	N/E	Not Listed	0-1
FD&C Blue #1	3844-45-9	223-339-8	CI 42090	N/E	N/E	Not Listed	0-1

N/E - None Established

N/DA - No Data Available

N/R - Not Reviewed

N/A - Not Applicable

Hazard Symbols: Xi F

Risk Phrases: R11, R36/37/38, R43

Safety Phrases: S9, S16, S29, S33, S36/37/39, S45

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

This information is based on findings from related or similar materials.

- Flammable liquid and vapor!
- May cause eye irritation.
- May cause skin irritation.
- Avoid prolonged or repeated breathing of gases, vapors or mists.
- Please read entire MSDS for additional information.



Potential Health Effects, Signs and Symptoms of Exposure:

Primary Route of Entry	Inhalation , skin , eyes
Eye	Vapor concentrations may cause irritation of eyes. Liquid contact with eyes can cause irritation and possible corneal damage.
Skin	Liquid concentration may cause moderate skin irritation. Repeated or prolonged contact may cause allergic skin rashes, itching and swelling which becomes evident on re-exposure to this product.
Ingestion	Causes irritation, a burning sensation of the mouth, throat and respiratory tract and abdominal pain.
Inhalation	High vapor concentrations may irritate the respiratory system. Prolonged exposure can lead to headaches , nausea , drowsiness and unconsciousness.
Sub-Chronic Effects	Unlikely to present a cancer hazard in man.

NOTE: Refer to Section 11, Toxicological Information for Details

Section 4 - First Aid Measures

First Aid for Eye	Flush with water for 15 minutes, including under eyelids. Seek medical help if discomfort persists.
First Aid for Skin	Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if discomfort persists.
First Aid for Inhalation	Remove to fresh air. If having breathing difficulty, give oxygen. If breathing has stopped, give artificial respiration. Get medical help if discomfort persists.
First Aid for Ingestion	Rinse mouth out with water. Only induce vomiting if directed by a physician. Never give anything by mouth to an unconscious person. Seek prompt medical attention.

Section 5 - Fire Fighting Measures

Flash Point (°F/°C)	Flammable Limit (vol%)	Auto-ignition Temperature (vol%)
Tag Closed Cup: 68°F/20°C	LEL : 2% : UEL : 2.5%	392.8 °C

Method:	
Extinguishing Media:	Foam, Carbon Dioxide, Dry Chemical or Carbon Tetrachloride.
Fire Fighting Instructions:	Wear self-contained breathing apparatus and full protective gear. Water may be ineffective unless used as a fine spray or fog. Use water spray to cool the exposed containers of methacrylate monomer.
Unusual Hazards:	Vapors may travel to source of ignition and flash back. Avoid ignition sources or excessive temperatures. Heat can induce polymerization with rapid release of energy. Closed containers may rupture explosively. Spontaneous polymerization may occur with prolonged aging.

Section 6 - Accidental Release Measures

Spill or Release Procedures	Eliminate all sources of heat and ignition. Use absorbent material for spills and dike it, wash spill material into retaining containers. Place containers in a well ventilated area. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as sawdust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. EU Regulations require the consultation of Directive 98/24/EC. If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.
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Section 7 - Handling and Storage

Handling	Keep away from heat, sparks, flames and other sources of ignition. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. Ground all metal containers when transferring and use explosion-proof equipment. Follow all MSDS/label precautions even after the container is emptied because it may retain product residues. Wash thoroughly after handling.
Storage	Store in a cool, dry area. Keep container closed when not in use. Store at ambient temperatures out of direct sunlight. Store in a well ventilated place. Store in accordance with National Fire Protection Association recommendations. Maintain air space inside storage containers. Inhibitor requires air (oxygen) contact to function. Check inhibitor levels after 3 months and return to original level.
Explosion Hazard	Avoid ignition sources or excessive temperatures. Heat can induce polymerization with rapid release of energy. Closed containers may rupture explosively. Spontaneous polymerization may occur with prolonged aging.

Section 8 - Exposure Controls / Personal Protective Equipment

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment.
Personal Protective Equipment	
General	To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product. Provide eye wash stations and safety showers. Wear impervious clothing to prevent ANY contact with this product, such as gloves, apron, boots, or whole body suit. Nitrile rubber is better than PVC.
Eye/ Face Protection	Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact due to splashing or spraying material.

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- Skin Protection** Use impermeable clothing to prevent ANY contact with this product, such as gloves, apron, boots, or whole body suit. Neoprene and Nitrile rubber is better than PVC.
- Respiratory Protection** A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain limited circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Section 9 - Physical and Chemical Properties

Appearance Blue-violet liquid	Odor & Odor Threshold sharp ester-like odor	pH N/A	Specific Gravity (H2O=1): 0.918	Viscosity <1mPas @ 20°C	% Volatile W/W %: 99+		
Boiling Point/ Freezing Point 243°F/117°C N/DA	Decomposition Temperature N/A	Octanol/Water Partitioning Coefficient Log Po/w 1.25	Vapor Pressure: mm Hg: 0.69 kPa @ 38°C	Vapor Density (Air =1) : 3.9	Evaporation Rate ButylAcetate =1: 1.5	Ignition N/A	Solubility In Water (20°C) 0.5g/100g @20°C
Flash Point (°F/°C) Tag Closed Cup: 68°F/20°C		Flammable Limit (vol%) LEL : 2% : UEL : 2.5%		Auto-ignition Temperature (vol%) 392.8 °C			

Section 10 - Stability and Reactivity

Stability: Stable	Incompatibility (Materials to Avoid): Reducing and oxidizing agents and UV light.
Hazardous Decomposition Products: Oxides of carbon when burned.	Hazardous Polymerization: May occur
Conditions to Avoid: Temperatures above 60 F, oxidizing or reducing agents, peroxides and amines, storage in absence of inhibitor, and inadvertent addition of catalyst.	

Section 11 - Toxicological Information

Acute Oral Toxicity Oral (Rat) LD50 : 13300mg/kg	Acute Dermal Toxicity Dermal(Rabbit) LD50 : > 9100 mg/kg	Acute Inhalation Toxicity Inhalation (Rabbit) LD 50: 3800 ppm	Irritation - skin N/DA	Irritation - Eye N/DA
Since this product contains a very low concentration of active components, the primary toxicological information is from the monomers. Further hazardous properties cannot be excluded. The product should be handled with care when dealing with chemicals.				
Sensitization N/DA		Mutagenicity Test positive as a mutagen on laboratory animals		Sub-chronic Toxicity N/DA

Section 12 - Ecological Information

Ecotoxicological Information

Acute Toxicity to Fish N/DA	Acute Toxicity to Invertebrates N/DA	Acute Toxicity to Algae N/DA	Bioconcentration N/DA	Toxicity to Sewage Bacteria N/DA
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Chemical Fate Information

Biodegradability N/DA	Chemical Oxygen Demand N/DA
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To the best of our knowledge, the ecotoxicological and chemical fate properties have not been thoroughly investigated. Do not allow to enter drinking water supplies, wastewater, or soil.

Section 13 - Disposable Considerations

Dispose of diking materials and absorbent in compliance with State, Local, and Federal regulations. Residual vapors may explode on ignition; do not cut, drill, or weld on or near the container. Mix with compatible chemical which is less flammable and incinerate.

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state

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and local requirements. For EU Member States, please refer to any relevant Community provisions relating to waste. In their absence, it is useful to remind the user that national or regional provisions may be in force.

Section 14 - Transport Information

DOT (49 CFR 172)	
Proper Shipping Name:	UN1993, Flammable liquids, n.o.s., (ethyl methacrylate, hydroxy propyl methacrylate), 3, PGII
Identification Number:	UN1993
Marine Pollutant:	No
Special Provisions:	T8, T31
Emergency Response Guidebook (ERG) #:	128
IATA (DGR):	
Proper Shipping Name:	UN1993, Flammable liquids, n.o.s., (ethyl methacrylate, hydroxy propyl methacrylate), 3, PGII
Class or Division:	3
UN or ID Number:	UN1993
Packaging Instructions:	
Emergency Response Guidance (ICAO)#:	
IMO (IMDG):	
Proper Shipping Name:	UN1993, Flammable liquids, n.o.s., (ethyl methacrylate, hydroxy propyl methacrylate), 3, PGII
Class or Division:	3.2
UN or ID Number:	UN1993
Special Provisions & Stowage/Segregation:	None
Emergency Schedule (EmS)#:	
Other Information:	Flash point = 20°C

Section 15 - Regulatory Information

US Federal Regulations

Clean Air Act: HAP/ODS	This product contains the following hazardous air pollutants (HAP's) as defined by the U. S. Clean Air Act: <ul style="list-style-type: none"> NONE This product does not contain any Class 1 or Class 2 ODS.
Clean Water Act:	This product contains the following Hazardous Substances as defined by the CWA: <ul style="list-style-type: none"> NONE This product does not contain any substances that are a Priority Pollutant or Toxic Pollutant under the CWA.
FDA: Food Packaging Status	This product has not been cleared by the FDA for use in food packaging and/or other applications as an indirect food additive.
Occupational Safety and Health Act	This product is considered to be a hazardous chemical under the OSHA Hazard Communication Standard. Its hazards are: <ul style="list-style-type: none"> Immediate (acute) health hazard Fire hazard
RCRA	This product is considered to be a hazardous waste under RCRA (40 CFR 261) RCRA Code: <ul style="list-style-type: none"> Ethyl methacrylate, CAS# 97-63-2, RCRA Code: U118 Characteristic of Ignitability, RCRA Code: D001
SARA Title III: Section 302 (TPQ)	This product contains no chemicals regulated under Sec. 302 as extremely hazardous substances that carry a TPQ
SARA Title III: Section 302 (RQ)	This product contains chemicals regulated under Section 304 as extremely hazardous chemicals for emergency release notification ("CERCLA" List). <ul style="list-style-type: none"> Ethyl Methacrylate, CAS# 97-63-2, RQ (Lbs): 1000
SARA Title III: Section 311-312:	This product is considered hazardous under the OSHA Hazard Communication Standard and is regulated under Section 311-312 (40 CFR 370). Its hazards are: <ul style="list-style-type: none"> Immediate (acute) health hazard Fire hazard
SARA Title III: Section 313:	This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: <ul style="list-style-type: none"> NONE

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TSCA Section 8(b): Inventory:	This product contains chemicals listed on the TSCA inventory or otherwise complies with TSCA premanufacture notification requirements.
TSCA Significant New Use Rule:	None of the chemicals in this material have a SNUR under TSCA.

State Regulations

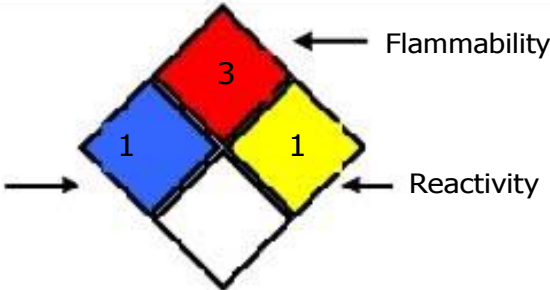

CA Right-to-Know Law:	NONE
California No Significant Risk Rule:	NONE
MA Right-to-Know Law:	Ethyl Methacrylate CAS #97-63-2
NJ Right-to-Know Law:	Ethyl Methacrylate CAS #97-63-2
PA Right-to-Know Law:	Ethyl Methacrylate CAS #97-63-2
FL Right-to-Know Law:	Ethyl Methacrylate CAS #97-63-2
MN Right-to-Know Law:	NONE

International Regulations

CDSL: Canadian Inventory (on Canadian Transitional List)	Ethyl Methacrylate DSL regulatory status: Included, WHMIS: B2: flammable liquid D-2B: Toxic N,N-dimethyl-p-toluidine DSL regulatory status: Included, WHMIS: n/da Hydroxypropyl methacrylate DSL regulatory status: Included, WHMIS: D2B Tetraethylene glycol dimethacrylate, DSL regulatory status: Included, WHMIS: n/da
EINECS: European Inventory: 	<ul style="list-style-type: none"> HAZARD SYMBOLS: Xi, F: Irritant, Highly Flammable RISK PHRASES: R11: highly flammable, R36/37/38: Irritating to eyes, respiratory system and skin, R43: May cause sensitization by skin contact SAFETY PHRASES: S9: keep container in a well ventilated place, S16: keep away from sources of ignition- no smoking, S29: do not empty into drains, S33: take precautionary measures against static discharges, S36/37/39: wear suitable protective clothing, gloves and eye/face protection, S45: In case of accident or if you feel unwell, seek medical advise immediately (show the label where possible)

Section 16 - Other Information

Hazard Rating System (Pictograms)

NFPA:	HMIS:
	

Revised Sections since Last Version:	10/12/2004 Overall Format Update.
	10/27/2004 Overall Format Update.
	08/22/2006 Section 2. FD&C Blue #1 added at 0-1%.
	12/20/07 DOT Name update

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