

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Smooth Set Liquid
GENERAL USE: monomer for manufacture of acrylic plastics
PRODUCT CODE: E LIQ 403

MANUFACTURER

Cacee, Inc.
 14271 Corporate Dr. Suite B
 Garden Grove, CA 92843
Emergency Contact: INFOTRAC
Emergency Phone: 800-535-5053
Customer Service: 714-265-3740

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Flammable liquids (Category 2), H225
 Acute toxicity, Oral (Category 3), H301
 Acute toxicity, Inhalation (Category 3), H331
 Acute toxicity, Dermal (Category 3), H311
 Skin irritation (Category 2), H315
 Eye irritation (Category 2A), H319
 Skin sensitisation (Category 1), H317
 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
 Specific target organ toxicity - repeated exposure (Category 2), H373
 Acute aquatic toxicity (Category 3), H402
 Chronic aquatic toxicity (Category 3), H412

GHS LABEL



SIGNAL WORD: DANGER

Hazard statement(s)

H225 Highly flammable liquid and vapour
 H227 Combustible liquid
 H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H340 May cause genetic defects.
 H350 May cause cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P233 Keep container tightly closed.

- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P264 Wash skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ eye protection/ face protection.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
- P314 Get medical advice/ attention if you feel unwell.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P330 Rinse mouth.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P337 + P313 If eye irritation persists: Get medical advice/ attention.
- P361 Remove/Take off immediately all contaminated clothing.
- P362 Take off contaminated clothing and wash before reuse.
- P363 Wash contaminated clothing before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/ container to an approved waste disposal plant.

Prevention:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Vol. %	CAS
Ethyl methacrylate	70-95	97-63-2
Hydroxypropyl methacrylate	0.2-10	27813-02-1
Tetraethylene glycol dimethacrylate	0.2-10	109-17-1
N,N-Dimethyl-p-toluidine	0.2-5	99-97-8

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE FIGHTING MEASURES**5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C

Light sensitive. Heat sensitive.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters****Exposure limits**

Component	CAS-No.	Value	Control parameters	Basis
N,N-Dimethyl-p toluidine	99-97-8	TWA	0.5 ppm	USA. Workplace Environmental Exposure Levels (WEEL)
Methyl methacrylate	80-62-6	TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	100 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	100 ppm	USA. OSHA - TABLE Z-1

			410 mg/m ³	Limits for Air Contaminants - 1910.1000
		TWA	100 ppm 410 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	100 ppm 410 mg/m ³	USA. NIOSH Recommended Exposure Limits

Exposure controls

Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Personal protective equipment.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN14287) respirator cartridges as a backup to engineering controls if the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH or CEN

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid

Odor: ester-like

Odor threshold: no data available

pH: no data available

Melting point/freezing point: no data available

Solubility: no data available

Initial boiling point and boiling range: 100°C

Flash point: 9°C (closed cup)

Evaporation rate: no data available

Flammability: no data available

Upper/lower flammability or explosive limits: no data available

Vapor pressure: 51.3 hPa (15mHg) @ 20 °C

Vapor density: 3.46-5.42

Relative density: no data available

Solubility: no data available

Partition coefficient: n-octanol/water: no data available

Auto-ignition temperature: no data available

Decomposition temperature: no data available

Viscosity: no data available

10. STABILITY AND REACTIVITY

Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Vapors may form explosive mixture with air.

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Strong oxidizing agents, Strong acids, Strong bases, Acid chlorides, Acid anhydrides

10.6 Hazardous decomposition products

Carbon oxides.

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION**Acute toxicity:**

Substance/Ingredient	Test results	Species	Time
Ethyl methacrylate	LD50 Oral 13,424 mg/kg LC50 Inhalation 8300 ppm	rat rat	4 h
Hydroxypropyl methacrylate	Not available		
N,N-Dimethyl-p-toluidine	LD50 intraperitoneal 212 mg/kg	Mouse	
Tetraethylene glycol dimethacrylate	LD50 Dermal 3,000 mg/kg	Rabbit	
Methyl methacrylate	LD50 Oral 7872 mg/kg LD50 Inhalation 78,00 mg/m ³ LD Dermal 5,000 mg/kg	Rat Rat Rabbit	4 h

Substance/Ingredient	Skin corrosion/irritation	Eye damage/irritation	Respiration sensitization	Skin sensitization
Ethyl methacrylate	Not available	Not available	Not available	Not available
Hydroxypropyl methacrylate	Not available	Not available	Not available	Not available
N,N-Dimethyl-p-toluidine	Not available	Not available	Not available	Not available
Tetraethylene glycol dimethacrylate	Mild skin irritation	Not available	Not available	Not available
Methyl methacrylate	Not available	Not available	Not available	Not available

Description of the delayed, immediate, or chronic effects from short and long term exposure**Specific target organ toxicity – single exposure**

May cause respiratory irritation.

Specific target organ toxicity – repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Chronic health effects

Substance/Ingredient	Germ Cell mutagenicity	Carcinogenicity	Reproductive toxicity
Ethyl methacrylate	Negative(fibroblast hamster)	No known significant effects	Not available
Hydroxypropyl methacrylate	no data available	No known significant effects	Not available
N,N-Dimethyl-p-toluidine	no data available	No known significant effects	Not available
Tetraethylene glycol dimethacrylate	Rat and mouse DNA damage	No known significant effects	Not available
Methyl methacrylate	no data available	IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Methyl methacrylate)	Not available

Aspiration hazard

no data available

Additional Information

Central nervous system depression, Drowsiness, Irritability, Dizziness, Ataxia., narcosis

Liver - Irregularities - Based on Human EvidenceAldrich - W400201 Page 7 of 8

Liver - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION**Toxicity**

Substance/Ingredient	Test	Species	Exposure	SK
Ethyl methacrylate	LC50 100mg/l EC50 66 mg/l EC50 110mg/l	Salmo gairdneri Daphnia	96 h 48 h 72 h	
Hydroxypropyl methacrylate	n/a			
N,N-Dimethyl-p-toluidine	LC50 46-52 mg/l	Pimephales promelas	96 h	
Tetraethylene glycol dimethacrylate	n/a			
Methyl methacrylate	LC50 125.5-275.0 mg/l EC50 720 mg/l EC50 170 mg/l	Pimephales promelas Daphnia Pseudokirchneriella subcapitata	96 h 96 h 96 h	

Persistence and degradability

Substance/Ingredient	Persistence/degradable
Ethyl methacrylate	n/a
Hydroxypropyl methacrylate	n/a
N,N-Dimethyl-p-toluidine	n/a
Tetraethylene glycol dimethacrylate	n/a
Methyl methacrylate	n/a

Bioaccumulative potential

n/a

Mobility in soil

n/a

PBT and vPVB assessment

n/a

Other adverse effects

N,N-Dimethyl-p-toluidine are harmful to aquatic life

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)****PROPER SHIPPING NAME:** Ethyl Methacrylate, Stabilized**PRIMARY HAZARD CLASS/DIVISION:** 3**UN/NA NUMBER:** 2277**PACKING GROUP:** II**REPORTABLE QUANTITY (RQ) UNDER CERCLA:** 1000 lb.**LABEL:** Flammable**15. REGULATORY INFORMATION****SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

Ethyl methacrylate, Methyl methacrylate

Pennsylvania Right To Know Components

Ethyl methacrylate, methacrylic acid, monoester with propane-1,2-diol, N,N-Dimethyl-p-toluidine, 3,6,9-Trioxaundecamethylene

dimethacrylate, Methyl methacrylate

New Jersey Right To Know Components

Ethyl methacrylate, methacrylic acid, monoester with propane-1,2-diol, N,N-Dimethyl-p-toluidine, 3,6,9-Trioxaundecamethylene dimethacrylate, Methyl methacrylate

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

MANUFACTURER DISCLAIMER: The information presented herein is believed to be accurate. Recipients are advised to confirm in advance that the information is current, applicable and suitable to their circumstances. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

HMIS Rating

Health hazard: 3

Chronic Health Hazard:*

Flammability: 3

Physical Hazard 0

NFPA Rating

Health hazard: 3

Fire Hazard: 3

Reactivity Hazard: 0