

SAFETY DATA SHEET



Date issued : 05/26/2015
 SDS number : 11710134_15277-12 - RESIN
 Date revised : 07/26/2023
 Revision number : 5

1. Identification

Product code: 11710134_15277-12 - RESIN

Product description: PLASTIC FUSION SYR 1OZ BRK OFF TIP (12) - RESIN

Manufacturer / Supplier

Pacer Technology
 3281 E. Guasti Road, Suite 260
 Ontario, CA 91761

Emergency contact: Chemtrec

Emergency Phone: (800) 424-9300

Customer Service: (909) 987-0550

2. Hazard identification

Classification of the substance or mixture

Health hazards:

Serious Eye Damage, Category 2
 Skin Corrosion, Category 1B

Environmental hazards:

Aquatic Toxicity, Category 3

Physical hazards:

Flammable Liquids, Category 2

Label elements

Note: If this product is a consumer product it is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.



Flame



Exclamation
mark



Corrosion

Signal word: DANGER

Hazard statement(s)

H225: Highly flammable liquid and vapour.

H314: Causes severe skin burns and eye damage.

H319: Causes serious eye irritation.

H402: Harmful to aquatic life.

Precautionary statement(s)

Supplemental label elements:

P302+352: IF ON SKIN: Wash with plenty of soap and water.

Prevention:

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

SAFETY DATA SHEET



Date issued : 05/26/2015
 SDS number : 11710134_15277-12 - RESIN
 Date revised : 07/26/2023
 Revision number : 5

P103: Read carefully and follow all instructions.
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211: Do not spray on an open flame or other ignition source.
 P233: Keep container tightly closed.
 P241: Use explosion-proof electrical/ventilating/lighting equipment.
 P242: Use non-sparking tools.
 P243: Take action to prevent static discharges.
 P264: Wash skin and hands thoroughly after handling.
 P271: Use only outdoors or in a well-ventilated area.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P363: Wash contaminated clothing before reuse.
 P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P260: Do not breathe mist or vapors.

Response:

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P304+P340: IF INHALED: Remove person to fresh air and keep 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.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
 P315: Get immediate medical advice/attention.
 P304+P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.

Disposal:

P501: Dispose of in a manner consistent with federal, state, and local regulations.

3. Composition/information on ingredients

Chemical name	% w/w	CAS No.
Methyl methacrylate (MMA)	25 - 70	80-62-6
Urethane acrylate oligomer	5 - 10	
2-METHYLPROPENOIC ACID	5 - 10	79-41-4
2,6-di-tert-butyl-p-cresol	< 5	128-37-0
Ethylene glycol	< 5	107-21-1
p-Toluenesulfonyl chloride	< 2	98-59-9
Cumene Hydroperoxide	< 2	80-15-9
Cumene	< 1	98-82-8

4. First-aid measures

SAFETY DATA SHEET



Date issued : 05/26/2015
SDS number : 11710134_15277-12 - RESIN
Date revised : 07/26/2023
Revision number : 5

Eye: Flush eye with water for 15 minutes. Get medical attention.

Skin: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting. Do not give anything to drink. Obtain immediate medical attention.

Inhalation: Remove to fresh air. Get medical attention if breathing is difficult.

Most important symptoms and effects, both acute and delayed

Eye: Causes serious eye damage.

Skin: Contact causes skin irritation.

Skin absorption: No data available on this product.

Ingestion: May be irritating. Seek medical advice.

Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.

Acute effects: Eye, skin and respiratory irritant.

Chronic effects: Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

5. Fire-fighting measures

Suitable extinguishing media: Water spray, foam, carbon dioxide, dry chemicals.

Hazardous combustion products: Can burn in fire, releasing toxic vapors.

Explosion hazards: Containers may rupture violently under fire temperatures. Cool containers with water if exposed to fire conditions.

Fire fighting procedures: Evacuate area and fight fire from a safe distance.

Fire fighting equipment: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

Fire explosion: Product is Flammable. Respiratory protection required for firefighters. Stay upwind from fire if possible when fire-fighting.

Sensitivity to static discharge: None known.

Sensitivity to mechanical impact: None known.

Hazardous decomposition products: Hazardous combustion products - carbon monoxide, carbon dioxide, nitrogen oxides, isocyanates, hydrogen cyanide, and other toxic vapors.

6. Accidental release measures

Small spill: Absorb liquid and place in sealed container for disposal.

Large spill: Remove all sources of ignition. Use spark-proof tools. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Absorb liquid and place in sealed container for disposal. Vapors can travel to an ignition source.

Environmental precautions

Water spill: Prevent from entering into soil, ditches, sewers, waterways and/or ground water. See Section 12, Ecological Information.

Land spill: Prevent from entering into soil, ditches, sewers, waterways and/or ground water. See Section 12, Ecological Information.

Air spill: None known.

Special protective equipment: Wear a self-contained breathing apparatus and appropriate personal protective equipment. (See Exposure Controls/Personal Protection Section).

SAFETY DATA SHEET



Date issued : 05/26/2015
 SDS number : 11710134_15277-12 - RESIN
 Date revised : 07/26/2023
 Revision number : 5

7. Handling and storage

General procedures: Keep away from heat, sources of ignition. No smoking. In use, may form flammable vapor air mixture. Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling: Comply with the legal requirements. Do not eat, drink or smoke when using this product. Do not discharge the waste into the drain. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood. Keep away from sources of ignition. Observe normal hygiene standards.

Conditions for safe storage: Keep container tightly closed. Protect from moisture. Keep only in the original container in a cool, well ventilated place away from: direct sunlight and heat sources. Store at temperatures exceeding 37C.

Storage temperature: No data available on this product.

Loading temperature: No data available on this product.

Loading/unloading viscosity: No data available on this product.

Storage pressure: No data available on this product.

Electrostatic accumulation hazard: None known.

8. Exposure controls/personal protection

Exposure controls

Control parameters				
Occupational exposure limit values				
Chemical name	Type			
			ppm	mg/m ³
Methyl methacrylate (MMA)	OSHA PEL	TWA	100	410
2,6-di-tert-butyl-p-cresol		TWA ACGIH TLV (Inhalable fraction and vapor)		2
Cumene	ACGIH TLV	TWA	50	
	OSHA PEL (skin)	TWA	50	

Appropriate engineering controls: Use only in a well ventilated area. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

Individual protection measures, such as personal protective equipment

Eye / face protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin protection - hand protection: Use Nitrile gloves and aprons to prevent contact. Do not use PVC, Nylon or Cotton materials.

Respiratory protection: NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Skin protection - other: Wear protective clothing. Launder contaminated clothing before reuse.

Occupational hygiene practices: Wash hands with soap and water after use. Launder contaminated clothing before reuse.

Other use precautions: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. Physical and chemical properties

SAFETY DATA SHEET



Date issued : 05/26/2015
SDS number : 11710134_15277-12 - RESIN
Date revised : 07/26/2023
Revision number : 5

Physical state: Liquid
Appearance: Off-white.
Color: White
Odor: Pungent, acrylic odor.
Odor threshold: No data available
pH: 2
Melting point: No data available
Freezing point: No data available
Initial boiling point and boiling range: 101°C (214°F)
Flash point: 10.5°C (51°F)
Evaporation rate (n-butyl acetate = 1): No data available
Flammability: No data available
Lower explosion limit / flammability limit: 2% Vol
Upper explosion limit / flammability limit: 12.5% Vol
Explosion limit / flammability limit notes: For Methyl methacrylate (MMA)
Vapor pressure: 29 mm Hg at 20°C (68°F)
Relative vapor density: > 1
Relative density: 0.94 to 1.0
Solubility: Insoluble in water.
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Pour point: No data available
Percent volatiles: <50 g/L, Both Resin & Activator combined.
Comments: <50 g/L, Both Resin & Activator combined.

10. Stability and reactivity

Reactivity: Alkalis. Amines. Moisture. Oxidizers. Reducing agents. Strong acids, bases. Ultraviolet radiation.
Chemical stability: Stable under normal conditions.
Conditions to avoid: Avoid direct sunlight, heat/sparks or ignition sources, high temperatures or exposure to incompatible materials.
Possibility of hazardous reactions: Hazardous polymerization may occur. Avoid excessive aging, excessive heat, and inhibitor depletion.
Hazardous decomposition products: Carbon monoxide and dioxide, hydrocarbons, hydrogen cyanide, isocyanates, oxides of nitrogen, irritating organic vapors.
Incompatible materials: Incompatible materials: alkalis, amines, moisture, oxidizers, reducing agents, strong acids, bases, and ultraviolet radiation.

11. Toxicological information

Acute toxicity

SAFETY DATA SHEET



Date issued : 05/26/2015
 SDS number : 11710134_15277-12 - RESIN
 Date revised : 07/26/2023
 Revision number : 5

Chemical name	LD ₅₀ (oral) mg/kg(rat)	LD ₅₀ (dermal) mg/kg(rabbit)	LC ₅₀ (inhalation) mg/l
Methyl methacrylate (MMA)	1320 mg/kg (rat)	No data available	0.9 to 4.7 mg/L per 4 hr (rat)
p-Toluenesulfonyl chloride	4680 mg/kg (rat)	Not listed	Not listed

Skin corrosion / irritation: Causes severe skin burns and eye damage.

Serious eye damage / irritation: Eye damage, category 1, implicit

Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: May cause genetic defects.

Carcinogenicity

Chemical name	IARC
Methyl methacrylate (MMA)	3

Notes: May cause cancer.

Reproductive toxicity: No data available.

Specific Target Organ Toxicity - single exposure: May cause respiratory irritation.

Specific Target Organ Toxicity - repeated exposure: No data available.

Aspiration hazard: No data available.

12. Ecological information

Other adverse effects: Use precautions to avoid release to sewers/drains/surface water and soil.

General comments: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

13. Disposal considerations

Disposal methods: Dispose of in accordance with all local, state, and federal regulations.

Empty container: Handle empty containers with care because residual vapours are flammable.

14. Transport information

USA Department of Transport Regulations (DOT)

UN proper shipping name: UN3316, CHEMICAL KIT, 9, II

ICAO / IATA - Air

UN proper shipping name: UN3316, CHEMICAL KIT, 9, II

IMO / IMDG - International

UN proper shipping name: UN3316, CHEMICAL KIT, 9, II

Comments: The transport information provided in this section only applies to the material formulation/itself, and is not specific to any package/configuration. This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. It is the responsibility of the transporting organizations to follow all applicable laws, regulations, and rules

SAFETY DATA SHEET



Date issued : 05/26/2015
 SDS number : 11710134_15277-12 - RESIN
 Date revised : 07/26/2023
 Revision number : 5

relating to the transportation of the material.

15. Regulatory information

UNITED STATES

SARA Section 311/312 Hazard Categories

311/312 Health hazards: Delayed (chronic) health hazard
 Immediate (acute) health hazard

311/312 Physical hazards: Fire Hazard

EPCRA Section 313 Toxic Chemicals

Chemical name	% w/w	CAS No.
Methyl methacrylate (MMA)	25 - 70	80-62-6
Cumene Hydroperoxide	< 2	80-15-9

CERCLA Hazardous Substances and Reportable Quantities (RQ)

Chemical name	% w/w	CERCLA rq
Methyl methacrylate (MMA)	25 - 70	1,000

TSCA (The Toxic Substances Control Act)

Chemical name	CAS No.
Methyl methacrylate (MMA)	80-62-6
Urethane acrylate oligomer	
2-METHYLPROPENOIC ACID	79-41-4
p-Toluenesulfonyl chloride	98-59-9

TSCA Status: All components are listed on or are exempt from listing on the Toxic Substances Control Act.

California Proposition 65: WARNING: This product can expose you to chemicals including Cumene, which is known to the State of California to cause cancer, and Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

16. Other information

Approved by: Pacer Technology Regulatory Department

Prepared by: Pacer Technology Regulatory Department **Date revised:** 07/26/2023

Revision summary: This SDS replaces the 06/21/2023 SDS. Revised: **Section 2:** Classification of the substance or mixture, Label elements, Precautionary statement(s).

SAFETY DATA SHEET

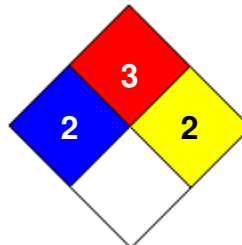


Date issued : 05/26/2015
SDS number : 11710134_15277-12 - RESIN
Date revised : 07/26/2023
Revision number : 5

HMIS rating

Health	<input type="text"/>	2
Flammability	<input type="text"/>	3
Physical hazard	<input type="text"/>	2
Personal protection	<input type="text"/>	

NFPA codes



Manufacturer disclaimer: To the best of our knowledge, the information contained herein is accurate. However, Pacer Technology does not assume any liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

SAFETY DATA SHEET



Date issued : 05/26/2015

SDS number : 11710134_15277-12 - HARDENER

Date revised : 04/10/2023

Revision number : 5

1. Identification

Product code: 11710134_15277-12 - HARDENER

Product description: PLASTIC FUSION SYR 1OZ BRK OFF TIP (12) - HARDENER

Manufacturer / Supplier

Pacer Technology
3281 E. Guasti Road, Suite 260
Ontario, CA 91761

Emergency contact: Chemtrec

Emergency Phone: (800) 424-9300

Customer Service: (909) 987-0550

2. Hazard identification

Classification of the substance or mixture

Health hazards:

Skin Irritation, Category 2
Skin Sensitization, Category 2
Mutagenicity, Category 1B
Carcinogenicity, Category 1B
Specific Target Organ Toxicity (Single Exposure), Category 3
Aquatic Chronic Toxicity, Category 3

Physical hazards:

Flammable Liquids, Category 2

Label elements

Note: If this product is a consumer product it is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.



Flame



Exclamation
mark



Health
hazard

Signal word: DANGER

Hazard statement(s)

H225: Highly flammable liquid and vapor.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H335: May cause respiratory irritation.
H340: May cause genetic defects.
H350: May cause cancer.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention:

P202: Do not handle until all safety precautions have been read and understood.

SAFETY DATA SHEET



Date issued : 05/26/2015

SDS number : 11710134_15277-12 - HARDENER

Date revised : 04/10/2023

Revision number : 5

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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 action to prevent static discharges.

P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264: Wash skin and hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P363: Wash contaminated clothing before reuse.

P314: Get medical advice/attention if you feel unwell.

Response:

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+310+P338+351: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention.

P370+P378: In case of fire: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment for extinction.

P403+P235: Store in a well-ventilated place. Keep cool.

P411+P235: Store at temperatures not exceeding 38C/100F. Keep cool.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

Disposal:

P501: Dispose of in a manner consistent with federal, state, and local regulations.

3. Composition/information on ingredients

Chemical name	% w/w	CAS No.
Methyl methacrylate (MMA)	60 - 85	80-62-6
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	< 5	34562-31-7
2,6-di-tert-butyl-p-cresol	< 5	128-37-0
Ethylene glycol	< 5	107-21-1
Poly(butadiene/MMA/Styrene)	3.135 - 3.201	25053-09-2
LOW BOILING POINT HYDROGEN TREATED NAPHTHA - NAPHTHA (PETROLEUM), HYDRODESULPHURIZED HEAVY	0.315 - 0.415	64742-82-1
2- Butoxyethanol	< 0.0045 - 0.0225	111-76-2
Acetic Acid	< 0 - 0.000183	64-19-7

SAFETY DATA SHEET



Date issued : 05/26/2015

SDS number : 11710134_15277-12 - HARDENER

Date revised : 04/10/2023

Revision number : 5

4. First-aid measures

Eye: Flush eye with water for 15 minutes. Get medical attention.

Skin: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting. Do not give anything to drink. Obtain immediate medical attention.

Inhalation: Remove to fresh air. Get medical attention if breathing is difficult.

Most important symptoms and effects, both acute and delayed

Eye: May cause slight irritation.

Skin: Contact causes skin irritation.

Skin absorption: No data available on this product.

Ingestion: May be irritating. Seek medical advice.

Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.

Acute effects: Eye, skin and respiratory irritant.

Chronic effects: Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

5. Fire-fighting measures

Suitable extinguishing media: Water spray, foam, carbon dioxide, dry chemicals.

Hazardous combustion products: Can burn in fire, releasing toxic vapors.

Explosion hazards: Containers may rupture violently under fire temperatures. Cool containers with water if exposed to fire conditions.

Fire fighting procedures: Evacuate area and fight fire from a safe distance.

Fire fighting equipment: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

Fire explosion: Product is Flammable. Respiratory protection required for firefighters. Stay upwind from fire if possible when fire-fighting.

Sensitivity to static discharge: None known.

Sensitivity to mechanical impact: None known.

Hazardous decomposition products: Hazardous combustion products - carbon monoxide, carbon dioxide, nitrogen oxides, isocyanates, hydrogen cyanide, and other toxic vapors.

6. Accidental release measures

Small spill: Absorb liquid and place in sealed container for disposal.

Large spill: Remove all sources of ignition. Use spark-proof tools. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Absorb liquid and place in sealed container for disposal. Vapors can travel to an ignition source.

Environmental precautions

Water spill: Prevent from entering into soil, ditches, sewers, waterways and/or ground water. See Section 12, Ecological Information.

Land spill: Prevent from entering into soil, ditches, sewers, waterways and/or ground water. See Section 12, Ecological Information.

Air spill: None known.

SAFETY DATA SHEET



Date issued : 05/26/2015

SDS number : 11710134_15277-12 - HARDENER

Date revised : 04/10/2023

Revision number : 5

Special protective equipment: Wear a self-contained breathing apparatus and appropriate personal protective equipment. (See Exposure Controls/Personal Protection Section).

7. Handling and storage

General procedures: Keep away from heat, sources of ignition. - No smoking. In use, may form flammable vapour air mixture.

Precautions for safe handling: Comply with the legal requirements. Do not discharge the waste into the drain. Do not eat, drink, or smoke when using this product. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood. Keep away from sources of ignition - No smoking. Observe strict hygiene. Provide good ventilation in process area to prevent formation of vapor. Take precautions against electrostatic charges. use personal protective equipment as required. Wash hands before smoking, eating, drinking, using toilet facilities. Work under local exhaust/ventilation.

Conditions for safe storage: Keep container in a well-ventilated place. Keep only in the original container. Keep out of direct sunlight. Meet the legal requirements. Store away from heat. Store in a cool area. Store in a dry area.

Storage temperature: 37°C

8. Exposure controls/personal protection

Exposure controls

Control parameters				
Occupational exposure limit values				
Chemical name	Type			
			ppm	mg/m ³
Methyl methacrylate (MMA)	OSHA PEL	TWA	100	410
2,6-di-tert-butyl-p-cresol		TWA ACGIH TLV (Inhalable fraction and vapor)		2
Acetic Acid	OSHA PEL	TWA	10	25
	ACGIH TLV	TWA	10	25
		STEL	15	37

Appropriate engineering controls: Use only in a well ventilated area. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

Individual protection measures, such as personal protective equipment

Eye / face protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin protection - hand protection: Use Nitrile gloves and aprons to prevent contact. Do not use PVC, Nylon or Cotton materials.

Respiratory protection: NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Skin protection - other: Wear protective clothing. Launder contaminated clothing before reuse.

Occupational hygiene practices: Wash hands with soap and water after use. Launder contaminated clothing before reuse.

Other use precautions: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. Physical and chemical properties

SAFETY DATA SHEET



Date issued : 05/26/2015

SDS number : 11710134_15277-12 - HARDENER

Date revised : 04/10/2023

Revision number : 5

Physical state: Liquid**Appearance:** Paste**Color:** Off-white to amber**Odor:** Acrylic**Odor threshold:** No data available**pH:** No data available**Initial boiling point and boiling range:** 101°C (214°F)**Flash point:** 10.5°C (51°F)**Evaporation rate (n-butyl acetate = 1):** No data available**Flammability:** No data available**Lower explosion limit / flammability limit:** 2.1**Upper explosion limit / flammability limit:** 12.5**Vapor pressure:** 29 mm Hg at 20°C (68°F)**Relative vapor density:** >1 (Air=1)**Relative density:** No data available**Solubility:** Insoluble in water.**Decomposition temperature:** No data available**Viscosity:** No data available**Pour point:** No data available**Percent volatiles:** No data available**VOC content:** < 50 g/L**Notes:** Both Activator and Adhesive mixed.**10. Stability and reactivity****Reactivity:** Alkalis. Amines. Moisture. Oxidizers. Reducing agents. Strong acids, bases. Ultraviolet radiation.**Dangerous polymerization:** Hazardous polymerization may occur when exposed to incompatible materials, excessive heat or when inhibitor depletion or excessive aging of product occurs.**Chemical stability:** May polymerize. Flammable liquid and vapor.**Conditions to avoid:** Direct sunlight. Moisture.**Possibility of hazardous reactions:** Hazardous reactions are possible when exposed to incompatible materials.**Hazardous decomposition products:** Carbon dioxide. Carbon monoxide. Oxides of Nitrogen.**Incompatible materials:** Alkalis. Amines. Moisture. Oxidizing agent. Reducing agents. Strong Acids. Strong bases.**11. Toxicological information****Acute toxicity**

Chemical name	LD ₅₀ (oral) mg/kg(rat)	LD ₅₀ (dermal) mg/kg(rabbit)	LC ₅₀ (inhalation) mg/l
Methyl methacrylate (MMA)	1320 mg/kg (rat)	No data available	0.9 to 4.7 mg/L per 4 hr (rat)
Acetic Acid	6190 mg/kg		

SAFETY DATA SHEET



Date issued : 05/26/2015
SDS number : 11710134_15277-12 - HARDENER
Date revised : 04/10/2023
Revision number : 5

Skin corrosion / irritation: Causes skin irritation.

Serious eye damage / irritation: No data available.

Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: May cause genetic defects.

Carcinogenicity

Chemical name	IARC
Methyl methacrylate (MMA)	3

IARC: No data available.

NTP: No data available.

OSHA: No data available.

Notes: May cause cancer.

Reproductive toxicity: No data available.

Specific Target Organ Toxicity - single exposure: May cause respiratory irritation.

Specific Target Organ Toxicity - repeated exposure: No data available.

Aspiration hazard: No data available.

12. Ecological information

Other adverse effects: Use precautions to avoid release to sewers/drains/surface water and soil.

General comments: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

13. Disposal considerations

Disposal methods: Dispose of in accordance with federal, state, provincial, and local regulations.

14. Transport information

USA Department of Transport Regulations (DOT)

UN proper shipping name: UN3316, CHEMICAL KIT, 9, II

ICAO / IATA - air

UN proper shipping name: UN3316, CHEMICAL KIT, 9, II

IMO / IMDG - International

UN proper shipping name: UN3316, CHEMICAL KIT, 9, II

Comments: The transport information provided in this section only applies to the material formulation/itself, and is not specific to any package/configuration. This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. It is the responsibility of the transporting organizations to follow all applicable laws, regulations, and rules relating to the transportation of the material.

15. Regulatory information

UNITED STATES

SARA Section 311/312 Hazard Categories

SAFETY DATA SHEET



Date issued : 05/26/2015

SDS number : 11710134_15277-12 - HARDENER

Date revised : 04/10/2023

Revision number : 5

EPCRA Section 313 Toxic Chemicals

Chemical name	% w/w	CAS No.
Methyl methacrylate (MMA)	60 - 85	80-62-6

CERCLA Hazardous Substances and Reportable Quantities (RQ)

Chemical name	% w/w	CERCLA rq
Methyl methacrylate (MMA)	60 - 85	1,000
Acetic Acid	< 0 - 0.000183	5,000

TSCA (The Toxic Substances Control Act)

Chemical name	CAS No.
Methyl methacrylate (MMA)	80-62-6
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	34562-31-7
Poly(butadiene/MMA/Styrene)	25053-09-2
LOW BOILING POINT HYDROGEN TREATED NAPHTHA - NAPHTHA (PETROLEUM), HYDRODESULPHURIZED HEAVY	64742-82-1
2- Butoxyethanol	111-76-2
Acetic Acid	64-19-7

TSCA Status: All components are listed on or are exempt from listing on the Toxic Substances Control Act.

California Proposition 65: WARNING: This product can expose you to chemicals including Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. for more information go to www.P65Warnings.ca.gov.

16. Other information

Approved by: Pacer Technology Regulatory Department

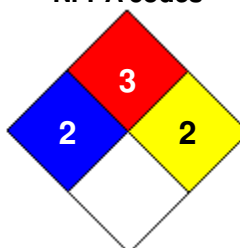
Prepared by: Pacer Technology Regulatory Department **Date revised:** 04/10/2023

Revision summary: This SDS replaces the 07/11/2022 SDS. Revised: **Section 1:** SDS number. **Section 2:** Classification of the substance or mixture, Label elements, Precautionary statement(s).

HMIS rating

Health	<input type="checkbox"/>	2
Flammability	<input type="checkbox"/>	3
Physical hazard	<input type="checkbox"/>	2
Personal protection	<input type="checkbox"/>	

NFPA codes



Manufacturer disclaimer: To the best of our knowledge, the information contained herein is accurate. However, Pacer Technology does not assume any liability for the accuracy or completeness of the information contained herein. Final determination of suitability

SAFETY DATA SHEET



Date issued : 05/26/2015

SDS number : 11710134_15277-12 - HARDENER

Date revised : 04/10/2023

Revision number : 5

of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.