

REVISED
AUG/2015



ASI
Adhesive Systems, Inc.
SAFETY DATA SHEETS

1. CHEMICAL PRODUCT

Adhesive Systems, Inc.
9411 Corsair Road
Frankfort, IL 60423
1-800-552-0299 Phone
1-815-464-5650 Fax

EMERGENCY PHONE 1-800-255-3924

International +01+813-248-0585

Product Name: **MP55320/MP55420 Part A (Resin)**

Technical Name: **Methyl Methacrylate Adhesive**

Intended Use of Product: **Adhesive for bonding**

2. HAZARDS IDENTIFICATION

HEALTH:

Acute Toxicity: Category 4

Skin Irritation: Category 3

Eye Irritation: Category 2B

Skin Sensitization: Yes

ENVIRONMENTAL:

Acute Toxicity: Category 3

Chronic Toxicity: Category 4

PHYSICAL:

Flammable Liquid: Category 4

HAZARD STATEMENTS:

Highly flammable liquid and vapor

May cause skin irritation

PRECAUTIONARY STATEMENTS:

Do not breathe vapor

Keep container closed

Use in well ventilated area

See Section 16 for additional information.



Symbol:
Signal Word: Danger



Symbol:

3. COMPOSITION AND INFORMATION ON INGREDIENTS

	CAS #:	% by Weight
Methyl Methacrylate Monomer (Stabilized)~	80-62-6	40-85*
Methacrylic Acid	79-41-4	1-8*

*Proprietary means the specific chemical identity and/or weight percent is being withheld as a trade secret.

~This chemical is subject to reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986, 40CFR372.

All of the ingredients in this product are listed or exempt from listing on the TSCA chemical list.



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Methyl Methacrylate

4. FIRST AID MEASURES

INGESTION: Rinse mouth with water. Give 1 to 2 glasses of water or milk. Get immediate medical attention, **DO NOT INDUCE VOMITING.**

INHALATION: Remove to fresh air. If breathing stopped give artificial respiration. If breathing is difficult give oxygen. Get medical advice.

SKIN CONTACT: Soak in warm soapy water. Discard contaminated clothing. Do not use organic solvents. If irritation occurs, get medical attention.

EYE CONTACT: Immediately flush eyes with water for at least 15 minutes, seek medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use dry chemical powder. Carbon dioxide gas, foam, Halon, water fog.

Unsuitable Extinguishing Media: Water spray or stream.

Exposure Hazard(s): Inhalation and dermal contact.

Combustion Products: Oxides of carbon and nitrogen, hydrocarbons, acidic gases.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and full turnout gear.

Unusual Fire / Explosion Hazards: LEL (Lower Explosion Limit): 1.6

UEL (Upper Explosion Limit): 12.5

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Keep away from heat, spark, and open flame.

Prevent contact with skin and/or eyes.

Provide ventilation, use explosion proof exhaust ventilation equipment and tools.

Environmental Precautions:

Prevent product or liquid(s) contaminated with product from entering sewers, drains, soil, or waterways.

Method(s) for Clean Up:

Inert absorbent material or sand. Use non sparking tools. Place material in a sealable metal or plastic container.

7. HANDLING AND STORAGE

This material is flammable.

Keep away from ALL ignition sources.

In ALL cases use only electrically grounded handling equipment.

In ALL cases metal pails and drums need to be grounded.

When using large volumes ensure that operational area is well ventilated.

Maintain exposure levels below the threshold limits.

If exposure limits exceed the established threshold limit values ensure that adequate ventilation is provided and maintain below the established limits.

Store between 5-25°C; avoid strong light and heat sources. These products should never be frozen.

Avoid skin contact, eye contact, and inhalation of vapor.

Keep container(s) tightly closed when not in use.

Do not eat, drink, or smoke while handling.



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Methyl Methacrylate

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

EXPOSURE LIMIT(S):

	ACGIH	ACGIH STEL	OSHA PEL	OSHA STEL
Methyl Methacrylate	50 ppm	100 ppm	100 ppm	N/E
Methacrylic Acid	20 ppm (skin)	N/E	20 ppm (skin)	N/E

Engineering Controls: Use good general local ventilation when working with this material.

Monitoring: Maintain area where in use below exposure limits.

PERSONAL PROTECTION EQUIPMENT:

Eye Protection: Avoid contact with eyes. Safety goggles / glasses suitable for use with chemicals.

Skin Protection: Avoid contact with eyes. Use butyl rubber gloves. Solvent resistant gloves and/or barrier cream should provide adequate protection for normal use.

Respiratory Protection: Use with adequate ventilation. If adequate ventilation is not available always use appropriate organic vapor mask.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off White

Odor: Strong, methacrylate smell

pH: Not applicable

Boiling Point: 100.5°C (212.9°F) Note: this is based on the first boiling component, MMA,

Flash Point: 11.5°C (52.7°F) TCC, Note: this is based on MMA.

Specific Gravity: 0.94 @ 25°C (77°F)

Solubility: Slight in water

Evaporation Rate: Not Determined

Auto Ignition Temperature: 421°C (798°F)

Decomposition Temperature: Not applicable

Odor Threshold: 0.75

Evaporation: > 1

Flammability: Category 2

Explosive Limits: Lower LEL 1.6%

Upper UEL 12.5%

Vapor Pressure: 28 mm HG @ 20°C (68°F)

Vapor Density: > 3.0 (Air = 1)

VOC Content: <50 grams mixed g/L



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Methyl Methacrylate

10. REACTIVITY AND STABILITY

Chemical Stability: Stable, unless heated

Hazardous Decomposition Products: None in normal use. Oxides of carbon, oxides of nitrogen, hydrocarbons, acidic gases.

Incompatibility: Oxidizers, acids, bases, amines.

Conditions to Avoid: Keep away from direct sunlight, heat, sparks, flame, and any ignition source.

11. TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE: Inhalation, eye, and skin contact

Acute symptoms and effects:

INHALATION: Severe overexposure may cause nausea, dizziness, and/or headache.

Irritation to eyes and nose are possible.

EYE CONTACT: Overexposure may result in severe eye injury with corneal or conjunctive inflammation if the eye comes in contact with the liquid.

SKIN CONTACT: May remove the oils from the skin and create irritation.

Dermatitis may occur.

INGESTION: May cause nausea, vomiting, diarrhea.

Chronic (long term) effects:

None known to humans.

Toxicity:

LD50

LC50

METHYL METHACRYLATE MONOMER:

Oral 7900 mg/kg (rat)

Inhalation: 3 hrs 7093 ppm (rat)

Dermal 35000 mg/kg (rabbit)

METHACRYLIC ACID:

Oral 1600 mg/kg (rat)

Inhalation: 6.7 mg/l (rat)

Dermal 500 mg/kg (rabbit)

Reproductive Effects: Not Established

Teratogenicity: Not Established

Mutagenicity: Not Established

Embryotoxicity: Not Established

Sensitization to Product: Not Established

Synergistic Products: Not Established

12. ECOLOGICAL INFORMATION

Ecotoxicity: None known **Mobility:**

In air <50g/L **Degradability:** Not established **Bioaccumulation:** Not established

13. DISPOSAL INFORMATION

This material must be disposed in compliance with local, state, and federal regulations. Consult a local licensed expert.



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MP55320/MP55420 Part A (Resin)

Methyl Methacrylate

14. TRANSPORTATION INFORMATION

U.S.DOT

Materials shipped in Quantities of more than 1 Liter in combination or single packaging.

UN 1133 Adhesives 3 II

Marine Pollutant: NO

Limited quantities, No shipping paper required. Limited quantity mark is required on the outer surface of the finished package.

ICAO/IATA

Materials shipped in Quantities of more than 1 Liter in combination or single packaging.

UN 1133 Adhesives 3 II

Materials shipped in Limited Quantities

ID 8000 Consumer Commodity 9 (Limited Quantity Marking with Y required on outer surface of the package and Class 9 label also required on the outer surface of the package)

IMDG

UN 1133 Adhesives 3 II

Limited and excepted quantity provisions: Limited Quantity up to 5 liters per single package. (IMDG code amendment 37-14, Volume 2. pg.48)

UN1133 Adhesives 3 II Ltd. Qty (FP in degrees C c.c. required on shipping paper) Limited marking only required on outer surface of package.

15. REGULATORY INFORMATION

TSCA

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

SARA

Title III, Section 13

This product does contain the following chemical(s) which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40CFR Part 372.

Methyl Methacrylate

CAS # 80-62-6

WHMIS CLASSIFICATION: Class B, Division 2, Controlled Product Class D, Division 2B

16. OTHER INFORMATION

Initial: 8/22/2007

Revised: AUG 2015

HMIS	HEALTH 2	FLAMMABILITY 3	REACTIVITY 2
NFPA	HEALTH 2	FLAMMABILITY 3	REACTIVITY 2

PRECAUTIONARY LABEL INFORMATION: HIGHLY FLAMMABLE, HARMFUL (SEE SECTION 2)

Risk Phrases:

R11	HIGHLY FLAMMABLE
R20	HARMFUL BY INHALATION
R21	HARMFUL IF CONTACT BY SKIN
R22	HARMFUL IF SWALLOWED
R43	MAY CAUSE SENSITIZATION BY SKIN CONTACT
R36/37/38	IRRITATING TO EYES, RESPIRATORY SYSTEM, AND SKIN



SAFETY DATA SHEETS

MP55320/MP55420 Part A (Resin)

Methyl Methacrylate

Safety Phrases::

- S2 KEEP OUT OF REACH OF CHILDREN**
- S7 KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE**
- S9 KEEP CONTAINER IN A WELL VENTILATED AREA**
- S15/16 KEEP AWAY FROM HEAT AND SOURCES OF IGNITION. NO SMOKING**
- S23 DO NOT BREAhte VAPOR**
- S24/25 AVOID CONTACT WITH SKIN AND EYES**
- S29 DO NOT EMPTY INTO DRAINS.**
- S37/39 WEAR SUITABLE GLOVES AND EYE PROTECTION**
- S51 USE ONLY IN WELL VENTILATED AREAS**

THIS PRODUCT IS INTENDED FOR USE BY SKILLED INDIVIDUALS AT THEIR OWN RISK.

NON-WARRANTY: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. Adhesive Systems shall not be liable for any injury, loss, or damage in the use of it's chemical products since the conditions of use are beyond our control. In every case we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Because of changing reporting requirements and other variables it is impossible to guarantee the accuracy of the information contained in this document. It is the responsibility of the user to determine proper personal protection based on the actual condition of use and to comply with all Federal, State, and Local laws and regulations.

Engineering Excellence

For technical information
and support call **1-800-552-0299** or visit our website at

www.instantca.com

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EMERGENCY PHONE 1-800-255-3924

International +01+813-248-0585

Product Name: MP55320/MP55420 Part B (Activator)

Technical Name: Methyl Methacrylate Adhesive

Intended Use: Adhesive for bonding

2. HAZARDS IDENTIFICATION

Primary Routes of Entry:

Inhalation and skin

Symptoms of Exposure:

Eyes-redness, swelling, tearing, and hazy vision.

Skin-redness, swelling, and itching.

Inhalation- Soreness of the nose and throat, coughing.

Medical Conditions Aggravated

by Exposure:

Preexisting eye, respiratory, and skin disorders may be aggravated by exposure.

Carcinogenicity:

None

Hazard Classification

Physical Classification: Flammable Liquid Category 3



Symbol:

Signal Word: Danger

Health Classification:

Irritant: Causes mild skin or eye irritation Category 3



Symbol:

Signal Word: Warning

3. COMPOSITION AND INFORMATION ON HARMFUL INGREDIENTS

	CAS #:	% by Weight
Benzoyl Peroxide (BPO)~	94-36-0	< 15*

*Proprietary means the specific chemical identity and/or weight percent is being withheld as a trade secret.

~This chemical is subject to reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986, 40CFR372.

All of the ingredients in this product are listed or exempt from listing on the TSCA chemical list.



SAFETY DATA SHEETS

MP55320/MP55420 Part B (Activator)

Methyl Methacrylate

4. FIRST AID MEASURES

Ingestion:	Get immediate medical attention. Rinse mouth with water. Give 1 to 2 glasses of milk or water. DO NOT INDUCE VOMITING.
Inhalation:	Remove to fresh air, if symptoms continue, seek medical advice.
Skin Contact:	Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation Soak in warm soapy water. Discard contaminated clothing. Do not use organic solvents. If irritation occurs, get medical attention.
Eye Contact:	Immediately flush eyes with water for at least 20 minutes, seek medical attention.

5. FIRE FIGHTING MEASURES

Flammable Limits: LEL=Not Established UEL=Not Established
Extinguishing Media: Use dry chemical powder, carbon dioxide gas, foam, halogen, water fog.
Unsuitable Extinguishing Media: Water spray or stream.
Exposure Hazards: Inhalation and skin contact.
Combustion Products: Oxides of carbon, oxides of nitrogen.
Special Fire Fighting Procedures: Wear self contained breathing apparatus and full turnout gear.
Unusual Fire / Explosion Hazards: None

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Keep away from heat, spark, flame.
Ventilate area of spill, provide sufficient ventilation or wear respiratory protective equipment.
Prevent contact with skin and eyes.

Environmental Protection:

Prevent product and contaminated liquids from entering drains, sewers, soil, or waterways.

Method(s) for Clean Up:

Absorb with sand / earth, inert material. Transfer to suitable container and dispose in accordance with local, state, and federal regulations.

7. HANDLING AND STORAGE

Handling:

When using large volumes ensure that operational area is well ventilated.
Avoid skin contact and inhalation of vapor.
Maintain exposure levels below the threshold limits.
If exposure limits exceed the established threshold limit values, ensure that adequate ventilation is provided and maintain below the established limits.
Keep away from all ignition sources.
Keep containers tightly closed when not in use.
Do not eat, drink, or smoke while handling.

Storage:

Store in a well ventilated area.
Keep container(s) tightly close when not in use.
Keep away from incompatible materials.
Keep away from all ignition sources.
Avoid direct sunlight and high temperatures.
Store below 25°C (77°F).
Do not freeze.
Storage at elevated temperatures will shorten shelf life.



SAFETY DATA SHEETS

MP55320/MP55420 Part B (Activator)

Methyl Methacrylate

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

EXPOSURE LIMITS:

	ACGIH	ACGIH STEL	OSHA PEL	OSHA STEL
Benzoyl Peroxide	5 mg/m ³	N/E	5 mg/m ³	N/E

Engineering Controls: Use local exhaust as needed.

Monitoring: Maintain airborne concentrations below exposure limits.

PERSONAL PROTECTION EQUIPMENT:

Eye Protection: Avoid contact with eyes. Safety goggles / glasses suitable for use with chemicals.

Respiratory Protection: Use with adequate ventilation. Use local exhaust to maintain exposure limits below those listed above. If adequate ventilation is not available always use appropriate organic vapor mask.

Skin Protection: Avoid skin contact. Nitrile or neoprene gloves for frequent immersion in material.

For normal use nitrile gloves, latex gloves, and/or barrier cream should provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off white

Odor: Mild

pH: Not applicable

Boiling Point: Not established Flash

Point: 84°C (184°F) BPO Specific

Gravity: 1.21 @ 23°C (73°F)

Solubility: Insoluble in water

Evaporation Rate: < 1

Auto Ignition Temperature: Not Established

Decomposition Temperature: 110°C (230°F)

Odor Threshold: Not established

Flammability: Category 4

Explosive Limits: Lower LEL Not established

Upper UEL Not established

Vapor Pressure: Not established

Vapor Density: Not established

VOC Content: None

10. REACTIVITY AND STABILITY

Chemical Stability: Stable

Hazardous Polymerization: None in normal use.

Incompatibility: Oxidizers, acids, bases, uv radiation, amines.

Conditions to Avoid: Keep away from direct sunlight and all ignition sources. Do not freeze.

Hazardous Decomposition Products: Carbon and nitrogen oxides.



SAFETY DATA SHEETS

MP55320/MP55420 Part B (Activator)

Methyl Methacrylate

11. TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE: Inhalation, eye and skin contact.

Acute symptoms and effects:

INHALATION: May cause irritation to nose, throat, and lungs.

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: Prolonged exposure may cause moderate skin irritation.

INGESTION: May cause nausea, vomiting, and diarrhea.

Chronic (long term) effects:

None known to humans.

Toxicity:

LD50

LC50

Benzoyl Peroxide

Oral: 6400 mg.kg (rat)

Oral: 2 mg/l 96 hours (guppy)

Reproductive Effects: None

Teratogenicity: None

Mutagenicity: None

Embryotoxicity: Note Established

Sensitization to Product: None

Synergistic Products: Not Established

12. ECOLOGICAL INFORMATION

Ecotoxicity: None known **Mobility:**

Not Established **Degradability:** Not

Established **Bioaccumulation:** Not

Established

13. DISPOSAL INFORMATION

This material must be disposed in compliance with local, state, and federal regulations. Consult a local, licensed expert.

14. TRANSPORTATION INFORMATION

U.S.DOT: NOT REGULATED

ICAO/IATA: NOT REGULATED

IMDG: NOT REGULATED

MARINE POLLUTENT: NO



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Methyl Methacrylate

15. REGULATORY INFORMATION

TSCA

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SARATitleIII,Section13

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Methyl Methacrylate

WHMIS CLASSIFICATION: Not Regulated

16. OTHER INFORMATION

Initial: 8/22/2007

Revised: AUG 2015

HMIS	HEALTH 1	FLAMMABILITY 1	REACTIVITY 1
NFPA	HEALTH 1	FLAMMABILITY 1	REACTIVITY 1

PRECAUTIONARY LABEL INFORMATION: Irritant

Risk Phrases:

R36/37/38 IRRITATING TO EYES, RESPIRATORY SYSTEM, AND SKIN

Safety Phrases:

S7	KEEP CONTAINER(S) TIGHTLY CLOSED WHEN NOT IN USE
S2/3	KEEP IN A COOL PLACE, OUT OF REACH OF CHILDREN
S15/16	KEEP AWAY FROM HEAT AND IGNITION SOURCES. NO SMOKING
S24/25	AVOID CONTACT WITH SKN AND EYES
S29	DO NOT EMPTY INTO DRAINS OR WATERWAYS
S35	DISPOSE OF CONTAINER IN A SAFE WAY
S37/39	WEAR SUITABLE GLOVES AND EYE PROTECTION
S45	IF SEEKING MEDICAL ATTENTION SHOW PHYSICAN LABEL OR SDS
S51	USE ONLY IN WELL VENTILATED AREAS

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NON-WARRANTY: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. Adhesive Systems shall not be liable for any injury, loss, or damage in the use of it's chemical products since the conditions of use are beyond our control. In every case we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Because of changing reporting requirements and other variables it is impossible to guarantee the accuracy of the information contained in this document. It is the responsibility of the user to determine proper personal protection based on the actual condition of use and to comply with all Federal, State, and Local laws and regulations.

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