

Safety Data Sheet
acc. to OSHA HCS

Printing Date 11/23/2016

Revision Number 1

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1 Identification

- **Product identifier**
- **Trade name:** MP55220/MP55320/MP55420 Part A (Resin)
- **Relevant identified uses of the substance or mixture.** Adhesive
- **Application of the substance / the mixture** Adhesives
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Adhesive Systems, Inc.
A Division of Royal Adhesives & Sealants, LLC
9411 Corsair Road
Frankfort, Illinois 60423
Phone Number: 800-552-0299
- **Information department:** Environment protection department.
- **Emergency telephone number:**
ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

Eye Irrit. 2B H320 Causes eye irritation.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Danger

- **Hazard statements**

Highly flammable liquid and vapor.

Causes skin and eye irritation.

May cause an allergic skin reaction.

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May cause respiratory irritation.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves / eye protection / face protection.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

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

Call a POISON CENTER/doctor if you feel unwell.

Wash contaminated clothing before reuse.

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

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 2

· **HMIS-ratings (scale 0 - 4)**

HEALTH	2
FIRE	3
PHYSICAL HAZARD	2

Health = 2

Fire = 3

Physical Hazard = 2

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

* 3 Composition/information on ingredients

· **Chemical characterization:** Mixtures

· **Description:** Mixture

· **Hazardous components:**

80-62-6	methyl methacrylate	50-100%
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79-41-4 methacrylic acid

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2.5-10%

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Overexposure, remove to fresh air and seek medical attention.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for 20 minutes under running water. Call a Doctor immediately.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
Firefighters use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
- **Protective equipment:** Protective clothing and respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste in accordance with federal state and local regulations.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Open and handle receptacle with care.
Ensure good ventilation/exhaustion at the workplace.

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- Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
 - Protect against electrostatic charges.
 - Keep container closed when not in use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
 - **Requirements to be met by storerooms and receptacles:** Store in a cool location away from direct heat.
 - **Information about storage in one common storage facility:** Store away from oxidizing agents.
 - **Further information about storage conditions:**
 - Store in cool, dry conditions in well sealed receptacles.
 - Keep receptacle tightly sealed.
 - Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

80-62-6 methyl methacrylate

PEL	Long-term value: 410 mg/m ³ , 100 ppm
REL	Long-term value: 410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm
DSEN	Long-term value: 205 mg/m ³ , 50 ppm

79-41-4 methacrylic acid

REL	Long-term value: 70 mg/m ³ , 20 ppm
	Skin
TLV	Long-term value: 70 mg/m ³ , 20 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment (see listings below)**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
- **Breathing equipment:**
 - Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

Face protection (face shield)

· **Body protection:**

Protective work clothing

Emergency showers and eye wash stations should be available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	White
Odor:	Characteristic
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point:	Undetermined.
Boiling point:	101 °C (214 °F)

· **Flash point:** 10 °C (50 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 430 °C (806 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Not determined.

· **Flammable limits:**

Lower:	2.1 Vol %
Upper:	12.5 Vol %

· **Vapor pressure at 20 °C (68 °F):** 47 hPa (35 mm Hg)

· **Specific gravity at 20 °C (68 °F):** 0.94 g/cm³ (7.844 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** >3 at 20C

· **Evaporation rate** >1

· **Solubility in / Miscibility with**

Water: Insoluble

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|---|
| · Partition coefficient (n-octanol/water): Not determined. |
| · Viscosity: |
| Dynamic: Not determined. |
| Kinematic: Not determined. |
| · Solvent content: |
| Organic solvents: 0.0 % |
| Solids content: Not available |
| · Other information <20 grams/liter [mixed] |

* 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
Heat, flames, sparks.
Direct sunlight
- **Incompatible materials:**
Reacts with acids.
Reacts with oxidizing agents.
Reacts with alkalis (bases)
Reacts with amines.
- **Hazardous decomposition products:**
Carbon monoxide
Carbon dioxide
Hydrocarbons

* 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

80-62-6 methyl methacrylate

Oral	LD50	7872 mg/kg (rat)
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79-41-4 methacrylic acid

Oral	LD50	1332 mg/kg (mouse)
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Dermal	LD50	500 mg/kg (rabbit)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:**
Irritating effect.
Vapors may be irritating to the eyes.
- **Sensitization:** Skin Contact - Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

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- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

80-62-6 methyl methacrylate

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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:** At present there are no ecotoxicological assessments.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:** Must be specially treated adhering to official regulations.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- **DOT, IMDG, IATA**

UN1133

- **UN proper shipping name**

- **DOT**

- **IMDG, IATA**

Adhesives

ADHESIVES

- **Transport hazard class(es)**

- **DOT**



- **Class**

3 Flammable liquids

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· **Label** 3

· **IMDG, IATA**



· **Class** 3 Flammable liquids

· **Label** 3

· **Packing group**

· **DOT, IMDG, IATA** II

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Warning: Flammable liquids

· **Danger code (Kemler):** 33

· **EMS Number:** F-E,S-D

· **Stowage Category** B

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:** Limited Quantities are allowed. Refer to 49 CFR for conditions that apply.

· **UN "Model Regulation":** UN 1133 ADHESIVES, 3, II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

80-62-6 methyl methacrylate

· **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

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· **New Jersey Right-to-Know List:**

All ingredients are listed.

· **New Jersey Special Hazardous Substance List:**

80-62-6	methyl methacrylate	F3, R2
79-41-4	methacrylic acid	CO, F2, R2

· **Pennsylvania Right-to-Know List:**

All ingredients are listed.

· **Pennsylvania Special Hazardous Substance List:**

80-62-6	methyl methacrylate	E
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· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

80-62-6	methyl methacrylate	E, NL
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· **TLV (Threshold Limit Value established by ACGIH)**

80-62-6	methyl methacrylate	A4
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· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **National regulations:**

- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Environment protection department.
- **Creation Date:** 11/23/2016
- **Date of preparation / last revision** 11/23/2016 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value

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*PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Flam. Liq. 2: Flammable liquids – Category 2**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B**Skin Sens. 1: Skin sensitisation – Category 1**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

USA